# Users Guide

HITACHI

C28WF535N

C32WF535N

DOLBY DIGITAL

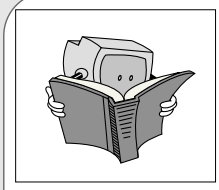
WIDE SCREEN

HITACHI

## Dear HITACHI customer

Congratulations on your purchase of the very latest state of the art television from HITACHI. At Hitachi we pride ourselves on producing high quality televisions with outstanding picture and audio capabilities. Together with our reputation for superior reliability, you should enjoy many years of trouble free operation from your TV.

## Important



Please read this Users Guide thoroughly, especially the Safety Notes on Page 4. Mis-use may cause damage to your television, which could shorten its lifespan, or cause injury to yourself. Should you encounter any difficulty in the set-up or operation of your television, firstly refer to the Trouble Shooting Guide at the rear of this manual.

In the unlikely event of a problem occurring with your TV, switch off at the mains socket, pull out the plug, and contact your dealer immediately.

**Under no circumstances remove the rear cover of your TV. Never guess or take any chances with electrical equipment of any kind - it is better to be safe than sorry!**

## Software Notice

It is prohibited for the end user of this product to copy, reverse engineer or reverse compile the software included therein, save to the extent permitted by law.

## Dolby Digital

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## Digital sound

Your Hitachi television is capable of decoding advanced forms of digital audio coding (such as Dolby Digital and PCM) that makes it possible to reproduce high quality digital sound. Being the next step forward from analogue sound, digital sounds sonic realism and listener involvement will change the way you experience sound from your Hitachi television. Digital sound works by delivering at maximum 5 separate audio channels - left, right, centre, left surround, right surround and also a LFE (Low Frequency Effects) channel. These independent channels allow for a more precise localisation of sounds and a more convincing, realistic ambiance.

## Caution

To prevent scratching or damaging the tube face, do not knock or rub the surface with sharp or hard objects. Clean the screen with a soft cloth moistened with warm water and dry with a soft cloth. A mild soap may be used if the screen is extremely dirty. Do not use harsh or abrasive cleaners!

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**This television has been designed and manufactured to meet international safety standards, but like any electrical equipment, care must be taken if you are to obtain the best results and safety is to be assured.**

**NEVER let anyone, especially children, push anything into holes, slots, or any other opening in the case - this could result in a fatal electrical shock. Under NO circumstances remove the rear cover of your TV!**

**NEVER guess or take chances with electrical equipment of any kind - it is better to be safe than sorry!**

**DO** read the operating instructions before you attempt to use the equipment.

**DO** ensure that all connections, (including the mains plug, extension leads and inter-connections between the pieces of equipment), are properly made and in accordance with the manufacturers instructions. Switch off and withdraw the mains plug before making or changing connections.

**DO** observe the manufacturers instructions when connecting extension leads to your TV. The fuse should be a 5 Amp fuse with the safety symbols ASTA and BSI displayed. If you are in any doubt about the extension installation, please consult a competent electrician.

**DO** consult your dealer if you are in any doubt about installation, operation or safety of your equipment.

**DO** be careful with any glass panels or doors on equipment.

**DO** place your TV on a flat surface, or if supplied, the stand accessory.

**IF** you intend placing this TV into a cabinet or a wall alcove, please ensure there is at least a 100mm (10cm) gap to the sides, rear and top of the TV. This is to allow for adequate ventilation during your TV's operation.

**SHOULD** you require to replace the fuse in the moulded plug with a new fuse, then please replace with one of the same value, type and approval as the original. Ensure the fuse cover is returned to its original position.

**TO** prevent scratching or damaging the tube face, do not knock or rub the surface with sharp or hard objects. Clean the screen with a soft cloth moistened with warm water and dry with a soft cloth. A mild soap may be used if the screen is extremely dirty. Do not use harsh or abrasive cleaners!

**DO NOT** cut off the fitted mains plug as it may contain a special radio interference filter, the removal of which could lead to impaired performance. If you wish to extend the lead, obtain an appropriate extension lead or consult your dealer.

**DO NOT** remove any fixed cover as this may expose dangerous voltages.

**DO NOT** place objects filled with liquids, e.g. a vase, on, or close to the equipment, to avoid spillages into the inside of the apparatus.

**DO NOT** continue to operate the equipment if you are in any doubt about it working normally or if it is damaged in any way - switch off, withdraw the mains plug and consult your dealer.

**DO NOT** leave equipment switched on when it is unattended unless it is specifically stated that it is designed for unattended operation or has a stand-by mode. Switch off using the switch on the equipment and show your family how to do this. Make special arrangements for infirm or handicapped people.

**DO NOT** obstruct the ventilation of the equipment, for example with curtains or soft furnishings. Overheating will cause damage and shorten the lifespan of your equipment.

**DO NOT** use makeshift stands and NEVER fix legs with wood screws - to ensure complete safety, always fit the manufacturers approved stand or legs with the fixings provided according to the instructions.

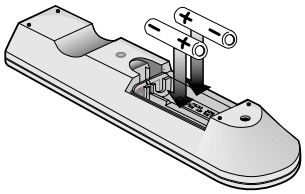
**DO NOT** allow electrical equipment to be exposed to rain or moisture.

**DO NOT** place hot objects such as candles or nightlights on, or close to, equipment. High temperatures can melt plastic and lead to fires.

**DO NOT** listen to headphones at high volume, as such use can permanently damage your hearing.

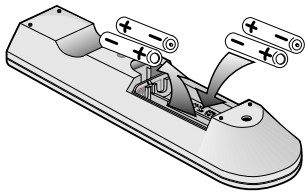
**DO NOT** use equipment such as personal stereos or radios so that you are distracted from the requirements of traffic safety. It is illegal to watch television whilst driving.

## always



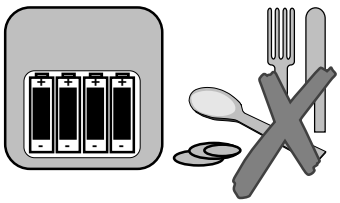
Take care to fit your batteries correctly, observing the plus '+' and minus '-' marks on the battery and appliance. Incorrect fitting can cause leakage, or in extreme cases, fire or explosion.

## always



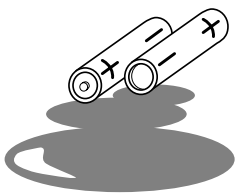
Replace the whole set of batteries at one time, taking care not to mix old and new batteries of different types, since this can result in leakage, or in extreme cases, fire or explosion.

## always



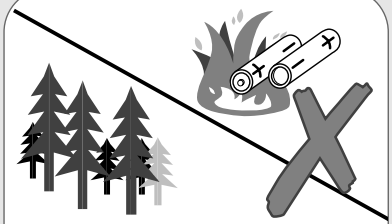
Store unused batteries in their packaging and away from metal objects which may cause a short circuit resulting in leakage, or in extreme cases, fire or explosion.

## always



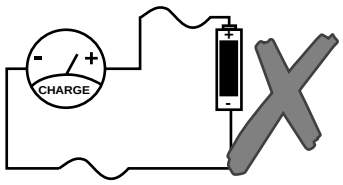
Remove dead batteries from equipment, and all batteries from equipment that is to be left for long periods of time without any use. Otherwise the batteries may leak and cause damage.

## never!



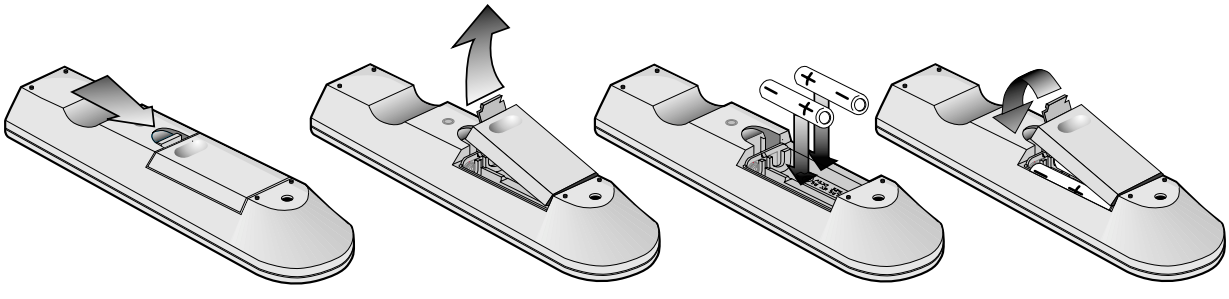
Never dispose of batteries in fire as this can cause an explosion.
Respect the environment - always dispose of batteries in an environmentally friendly manner.

## never!




Never attempt to recharge ordinary batteries, either in a charger or by applying heat to them. They may leak, cause fire or even explode.
Rechargeable NiCAD batteries and chargers can be purchased from any good High Street electrical retailer.

## battery installation



1. Remove cover of handset by lifting up the cover at the recess.
2. Insert batteries into handset as shown and replace cover.

1. When inserting the batteries make sure the polarities are correct, that is, '+' to '+', '-' to '-'.
2. Replace the batteries with the equivalent 'AA' type.
3. Discard old batteries safely, following the battery safety guidelines.

### on/off button

Use this to switch your TV on and off. (When switched off using this button your TV consumes no power - unlike when in standby mode).

### TV mode light

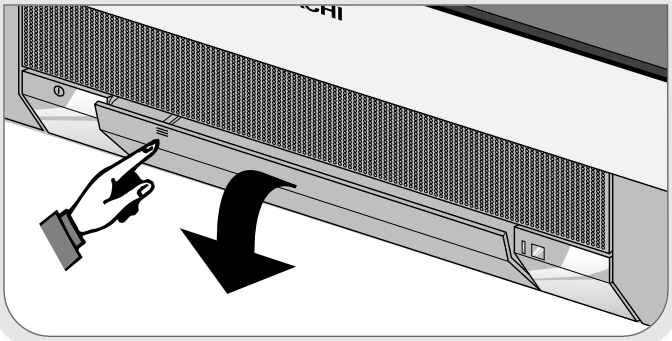
This will be lit when your TV is on and when in standby mode, and flash when a function from your remote control is being sent to the TV.

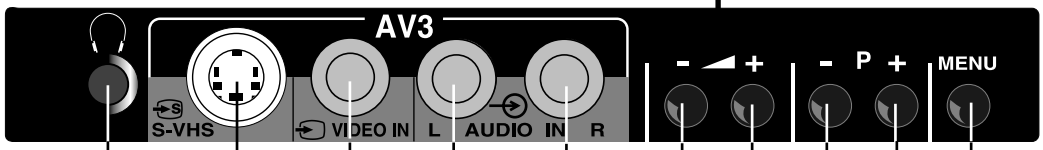
### infra-red lens

This is for reading commands sent from your remote control handset.

### television controls door panel

To use the controls push the door in and release.






### headphone socket

Used with headphones (3.5mm stereo jack plug required).

### volume buttons

Used to increase '+', or decrease '-' your TV's sound (or cursor right and left when in On Screen Display menus).

### S-VHS sockets

This socket is for use with external equipment.

### program buttons

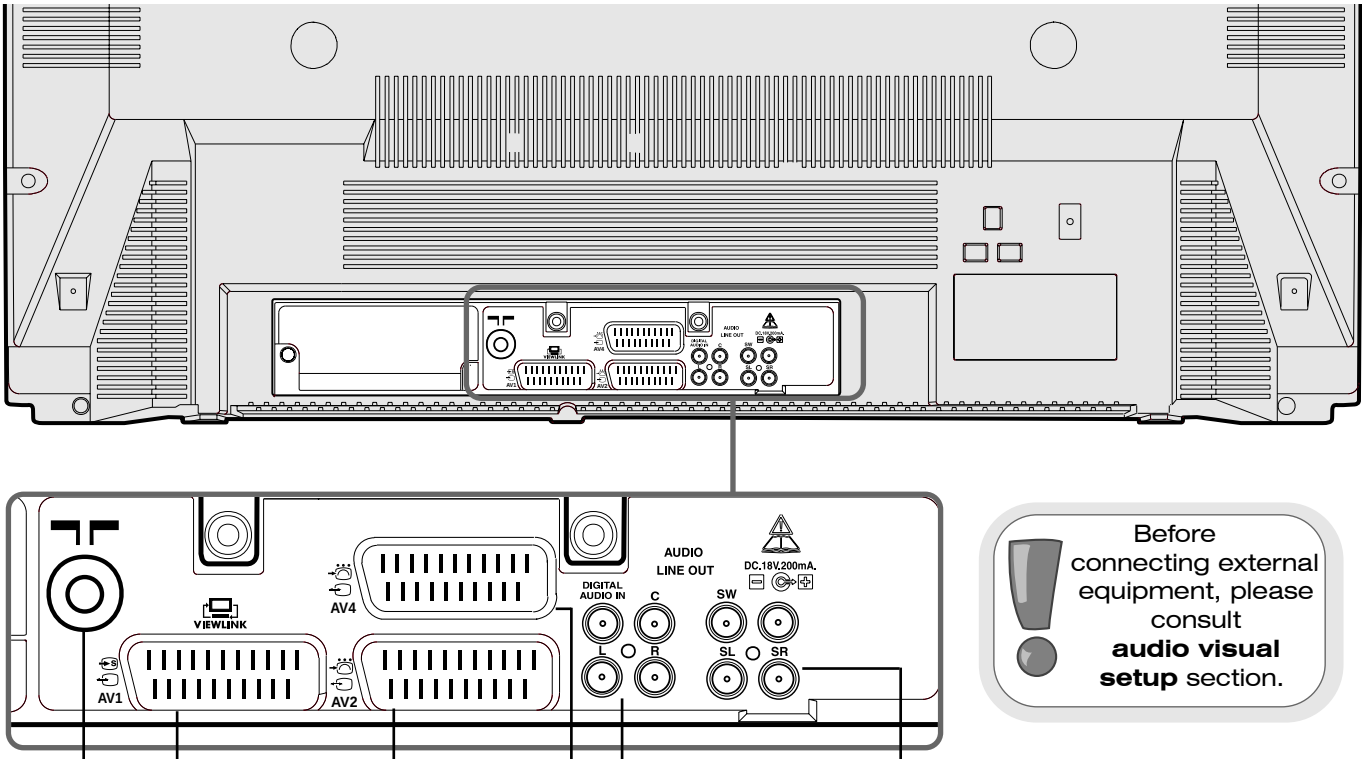
Used to change the TV channel up '+' or down '-' (or cursor up and down when using the On Screen Display menus).

### audio/video sockets

These sockets are for use with external equipment.

### menu button

Used to access your on screen MAIN MENU for TV features adjustment.




Before connecting external equipment, please consult **audio visual setup** section.

## AV2 scart input

Use this to connect digital video broadcasting equipment, home computers and home entertainment systems to your TV.

## audio output (RCA)

Use this to connect to external amplifier or Hi-Fi system.

## AV1 scart input

Use this socket to connect ordinary VHS, S-VHS or Hi8 equipment to your TV. (Connect VCR to AV1 for Viewlink).

## AV4 scart input

Use this to connect digital video broadcasting equipment, home computers, home entertainment systems and DVD players etc. to your TV.

## RF aerial socket

This should be permanently connected to an RF source - i.e your aerial antenna.

## important note on installation

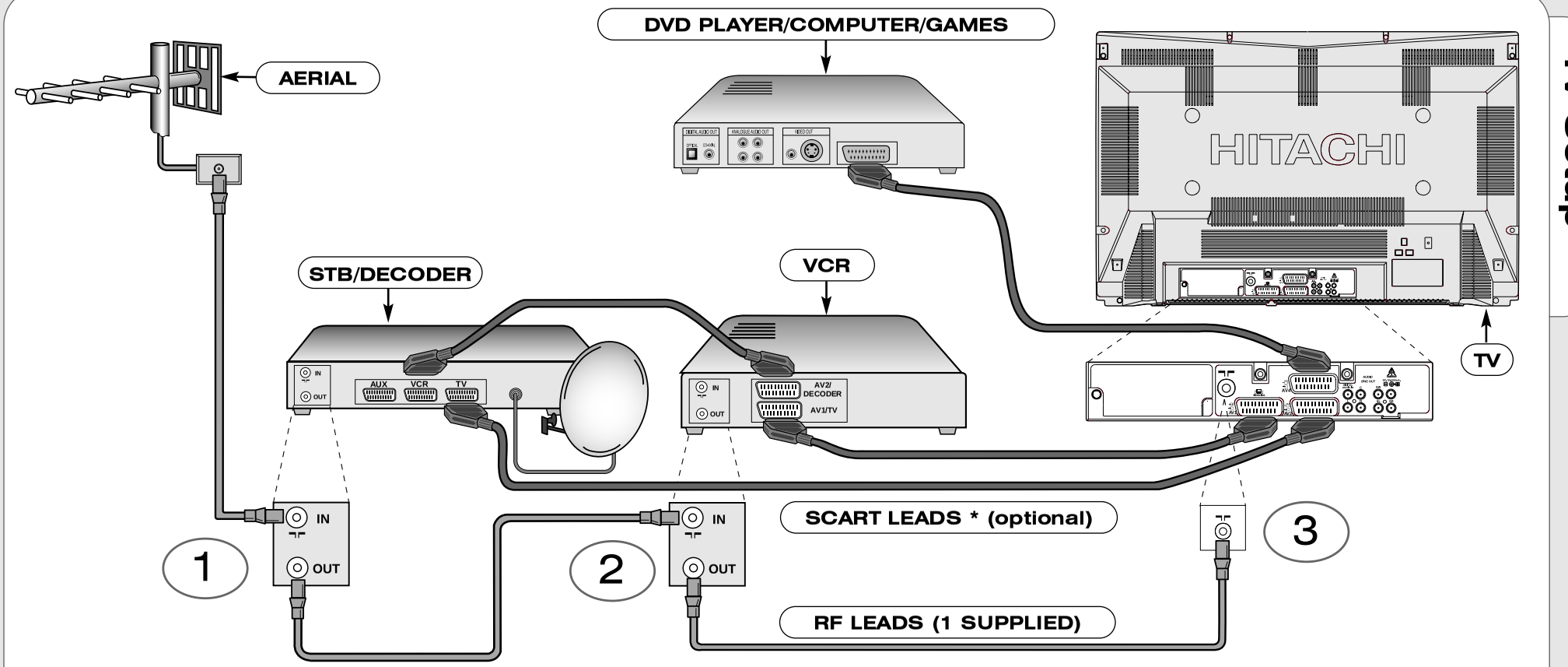
***If you intend placing this TV into a cabinet or wall alcove, please ensure there is at least a 100mm (10cm) gap to the sides, rear and top of the television. This is to allow for adequate ventilation.***

***Do not allow soft furnishings, such as curtains to be draped over the TV whilst in operation.***

***Never place the TV onto a carpet during normal operation - this could obstruct ventilation slots on the base of the TV.***

***Always place the TV on a flat surface, or if supplied, the stand accessory.***

***Failure to observe the above guidelines could result in serious overheating of your TV, or even, in extreme cases, fire.***




TV Setup

1 Connect **aerial connection lead** to the **STB/Decoder 'in'** socket marked ⌐┬─ .

2 Connect **STB/Decoder 'out'** to **VCR 'in'** socket marked ⌐┬─ .

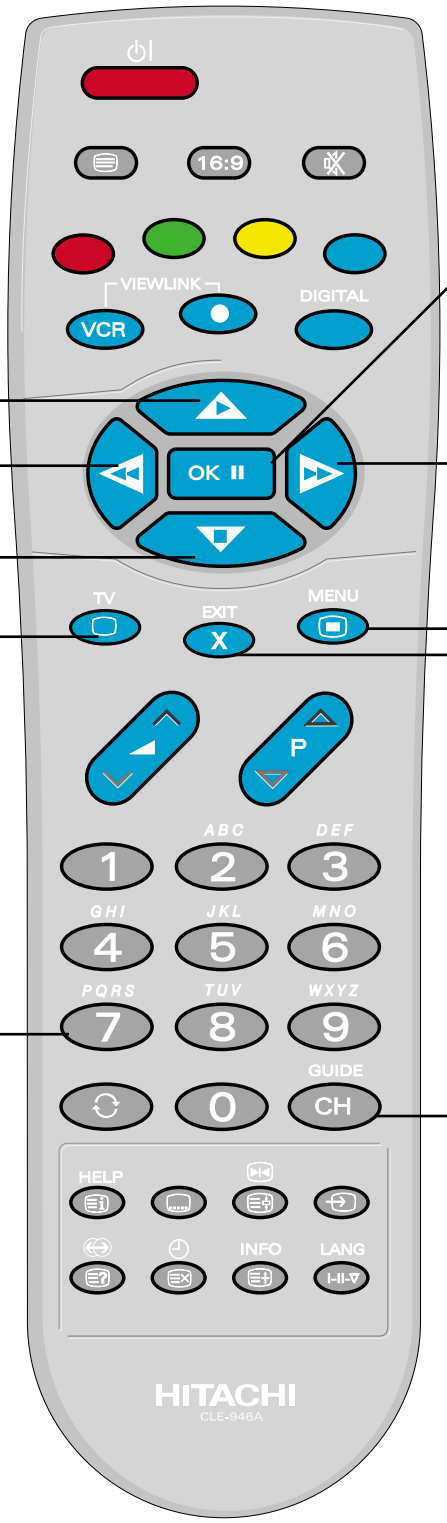
3 Connect **VCR 'out'** to **TV 'in'** socket marked ⌐┬─ .

IMPORTANT NOTE : When you connect your VCR to your television, the Audio Visual option has to be set correctly to ensure best picture quality - see **audio visual setup** section.

VHS video equipment should be connected to the AV1 scart socket located at the rear of your TV. A dedicated programme number may be assigned to AV1, allowing you easier access to external equipment viewing. How to assign an AV signal to dedicated programme numbers is explained in **signal source entry** section.

***** Scart leads should be fitted between your TV and other equipment to enhance your picture and sound quality. Scart leads are essential if you have a stereo TV and VCR and wish to obtain stereo sound from your equipment. These leads can be purchased from your Hitachi dealer or any good High Street electrical retailer.

**The handset controls shown below are used when programming your TV and to adjust the sound and picture features.**




### cursor up

Use this button to move the menu selection box up.

### cursor left

Use this button to move the menu selection box left.

### cursor down

Use this button to move the menu selection box down.

### television

Press this button to leave the menu you are on and return to normal TV operation.

### accept

This button is used to confirm a highlighted selection.

### cursor right

Use this button to move the menu selection box right.

### menu

This button is used to enter the main menu. This is where your TV's features options are displayed.

### exit

This button is used to return to the previous on screen menu you were viewing, or to cancel a selection.

### frequency

This allows you to directly input known broadcasting CH or frequency numbers.

### number/letter buttons

These number buttons can also be used to enter letters, which are required for some features e.g. programme name change etc.
**To enter letters**: Press the number key twice for the first corresponding letter (written above the key), three times for the second etc.
*Example: Press number key 2, twice for 'A', three times for 'B' and four times for 'C'.*

**The handset controls shown here are used when your TV is in normal operation.**

## standby

Used to switch your TV in and out of standby mode.

## sound mute

This button allows you to switch the TV's sound on and off.

## 16:9 button

This button allows you to switch between the various wide screen features of your TV (see **wide screen viewing** section).

## VCR/record

Press both buttons simultaneously to record what is being viewed (only available if VCR is Viewlink compatible -see **viewlink** section).

## VCR/stop

Press both buttons simultaneously to stop recording (only available if VCR is Viewlink compatible - see **viewlink** section).

## programme controls

Used to change channels either up '+' or down '-'.

## volume controls

Used to increase '+' or decrease '-' your TV's volume.

## CH frequency

This allows you to directly input known broadcasting CH or frequency numbers.

## AV setup

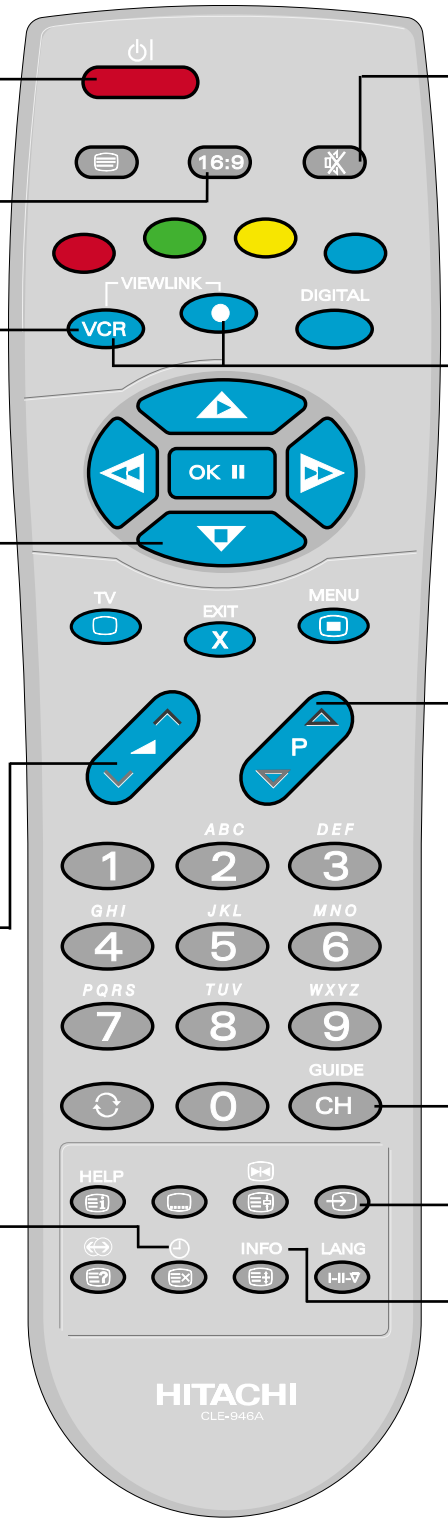
Used to select a signal source for external equipment.

## time

Use this button to display the current time on screen.

## INFO info

Press this button to view the current TV status.




## VCR Operation

Your handset incorporates controls for operation of HITACHI Video Cassette Recorders. These controls are PLAY, STOP, REWIND, FAST FORWARD and PAUSE.

**To PLAY :** Press the VCR and Play buttons on your handset simultaneously.

**To STOP :** Press the VCR and Stop buttons on your handset simultaneously.

**To REWIND :** Press the VCR and Rewind buttons on your handset simultaneously.

**To FAST FORWARD :** Press the VCR and Fast Forward buttons on your handset simultaneously.

**To PAUSE :** Press the VCR and Pause buttons on your handset simultaneously.

**The handset controls shown here are used when you are operating Teletext.**

## teletext

Press this button to use the Teletext services.

## colours

*(red, green, yellow, blue)*
On certain pages in teletext, these will have coded instructions i.e. a shortcut to a Teletext page or title.

## swap

In Teletext mode - views the previous page.
In TV mode - returns from your current viewing channel to the previous one.

## television

Press this button to return to normal TV operations when in the Teletext mode.

## index

Pressing this button will take you to the index.

## hold

Use this to 'freeze' the Teletext page on display to prevent the page changing (press again to continue).

## reveal

Used in Teletext mode to show hidden information eg. quiz pages answers.

## expand

Use this button to expand the size of the teletext page on view.

## update

Restores TV picture whilst the TV is looking for the entered Teletext page.

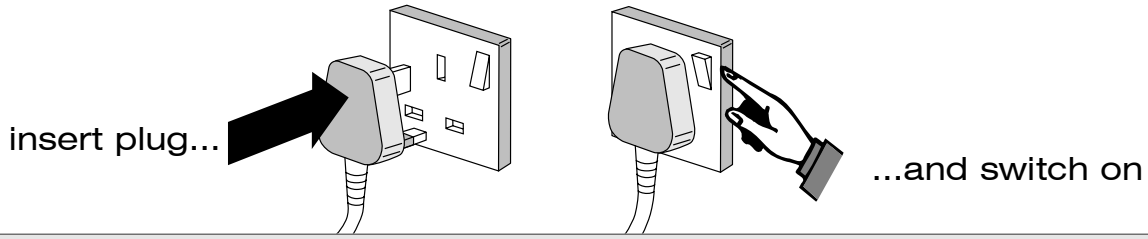
## subtitles

Use this to access a subtitle service directly rather than through a Teletext service (subject to subtitle service broadcasting).

**See 'Teletext operation' section for details of Teletext services**

## connecting to the mains socket

Important - If you have not already done so, please read the **television safety** section before connecting your television and external equipment.




## important note on VCR and satellite

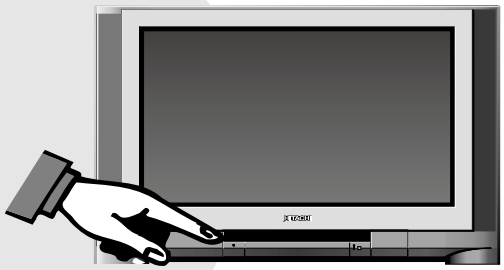
Do not switch your TV on until all external equipment is connected. If you have a Video Cassette Recorder or a Satellite receiver connected to this TV please ensure that they are switched on before automatic tuning begins. In the case of a VCR, if it is not Viewlink compatible, insert a pre-recorded tape and begin playback of your equipment. If it is Viewlink compatible leave VCR in Standby. (See **viewlink** section of this manual for details). With a Satellite receiver select Sky News. These measures ensure that all your external equipment is tuned in during the autotune procedure.

## important note - on-screen help

When using the menus of your Television, extra on screen help will be displayed in this window.

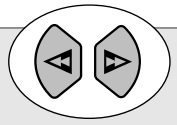
1

To make your programme tuning easier, HITACHI have installed an automatic tuning procedure to find the programmes. Switch your TV on.



2

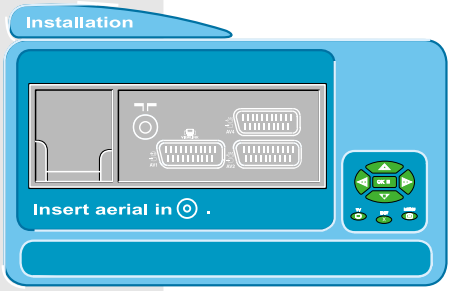
The first screen viewed will ask you to choose the language of your TV's display. Use the LEFT/RIGHT cursor buttons to choose your language.



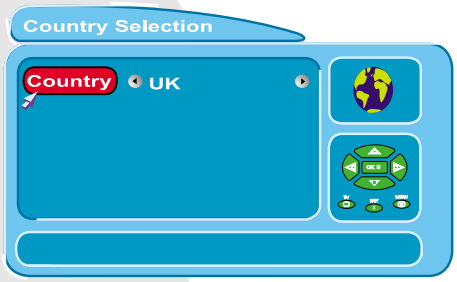
**3** Once highlighted, accept selection. OK

**4** The next screen viewed will ask you to insert your aerial connection lead.
If you are satisfied all external equipment has been connected, press the OK button on your handset and AUTOTUNE will begin.

OK

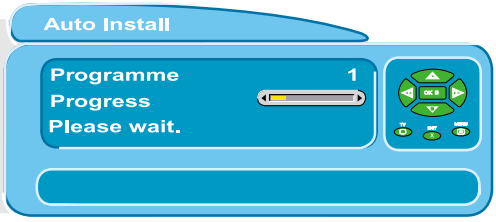



**5** Next, the country screen requires you to select the country in which you will be watching your TV. Use the LEFT/RIGHT buttons to adjust.

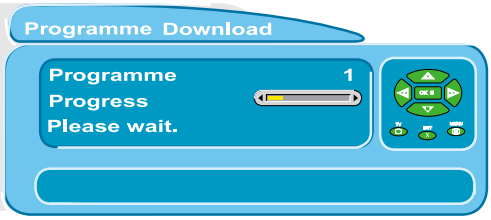



**6** Once the country of choice is viewed, press the OK button to continue. OK

**7** Your TV will now search through the frequencies, storing them in order.




*PLEASE NOTE : If your VCR is Viewlink compatible, your TV will now download the programme information - see **viewlink** section of this manual.*

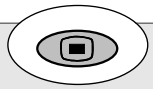


## ...notes on manual tuning

As well as an automatic tuning procedure your HITACHI television also allows you to input broadcast frequencies through a number of different entry methods. Follow the steps below and choose one of the 4 entry methods to input broadcast frequencies.

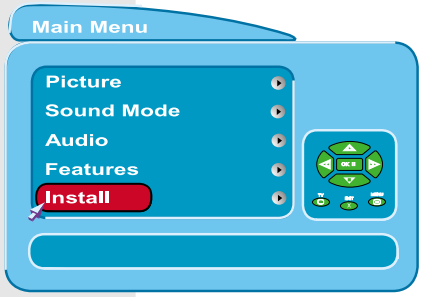
**VCR should be tuned into Programme 0.**
Follow the steps below to tune in your VCR if it was not found during Autotune. See **programme sort** section to move to channel 0.

1. Press the MENU button. The MAIN MENU appears.



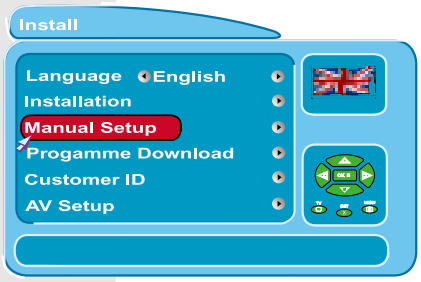
2. Press the cursor DOWN button to select INSTALL.

3. Once highlighted, accept selection.

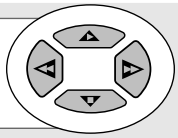



4. Press the cursor DOWN button to select MANUAL SETUP.

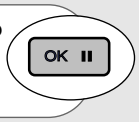
5. Once highlighted, accept selection.

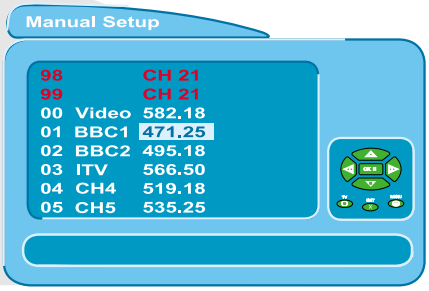



6. Use the cursor keys to move the selection bar over the programme frequency required to be adjusted.



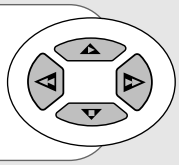
7. Once highlighted, accept the selection to change the frequency. The selection bar will turn blue. It is now ready to change.

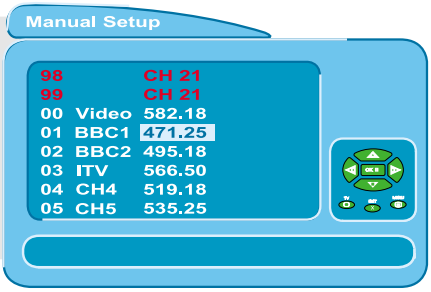


## entry method 1

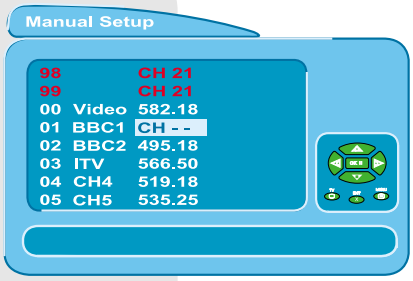
The first option will be to fine tune the chosen frequency either UP or DOWN using the LEFT/RIGHT cursor keys or search tune UP or DOWN using the UP/DOWN cursor keys.





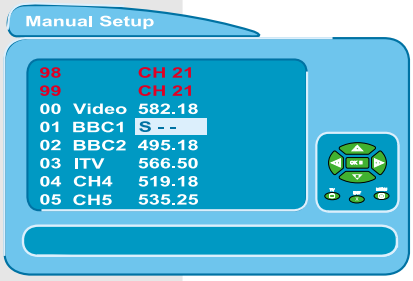
## entry method 2

If the CH key (CH) is pressed, you can enter a two digit channel number (CH) using buttons 0 - 9 on your handset.



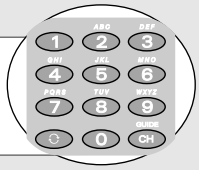

## entry method 3

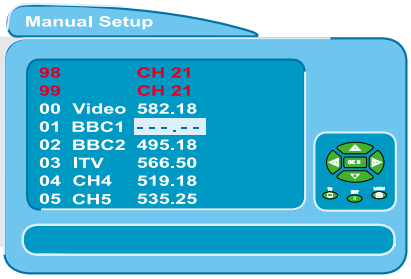
If the CH key (CH) is pressed again, you can enter a two digit S-band number using buttons 0 - 9 on your handset.




## entry method 4

If the CH (CH) key is pressed again, you can manually input a five digit frequency (if known) using buttons 0 - 9 on your handset.

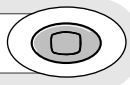





8 Once the method of entry has been decided upon and the new frequency or channel entered, this can then be stored in the TV's memory by pressing the OK button.

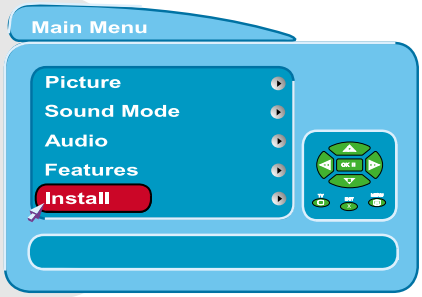
*If you have a Viewlink compatible video, press the AV key (⇥) to transfer any information changes to your VCR.*

9 To return to normal TV operation, press the TV button on your handset.



1. Press the MENU button. MAIN MENU appears.

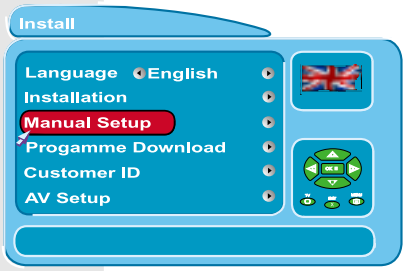
2. Press the cursor DOWN button to select INSTALL.




3. Once highlighted, accept selection.

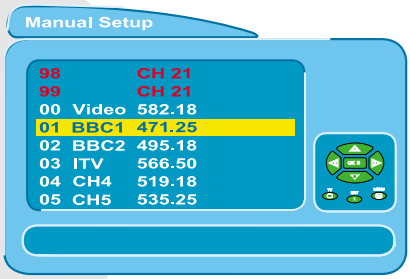
4. Press the cursor DOWN button to select MANUAL SETUP.

5. Once highlighted, accept selection.



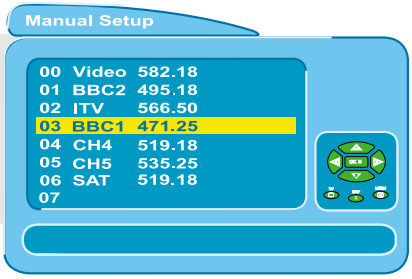

6. Use the UP/DOWN cursor keys to select the programme you wish to move.

7. Once highlighted, accept selection.



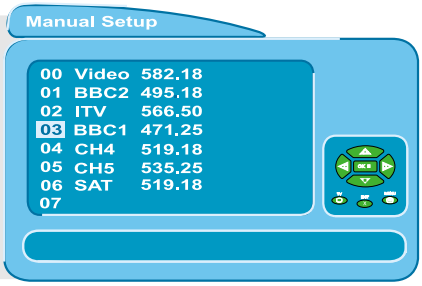

When a channel has been selected, you also have the option to 'hide' a programme - this makes your TV skip the hidden channel when the UP/DOWN program controls are used to change channels. Press the '0' digit on your handset and you will see the text within your chosen selection turn red. Your selection is hidden. Press the '0' button again to 'unhide' the selection. If a hidden channel is to be viewed, you can achieve this by entering the channel number with the handset digits 0 to 9.

8. Using the UP/DOWN buttons again you can move the selection to occupy a new position of your choice.
*Note: Using the P+/P- buttons for movement will make selections in multiples of 8.*




9. Once this has been done, accept selection and the chosen programme will now occupy its new position, Repeat if necessary.

*If you have a Viewlink compatible video, press the AV key to transfer any information changes to your VCR.*

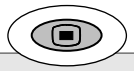



10. To return to normal TV operation, press the TV button on your handset.

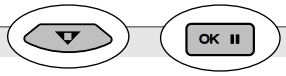
## ...notes on programme name change

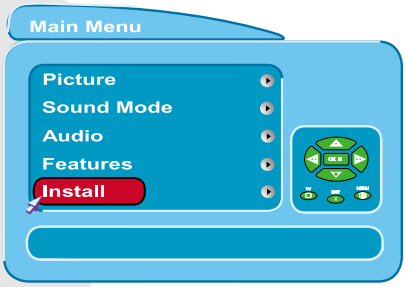
Programme name change can be very useful if you connect external equipment to your television. For example, if you have a games machine connected, you can name the allocated channel 'GAME', making it easier to find.

**1** Press the MENU button. The MAIN MENU appears.

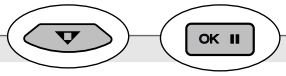


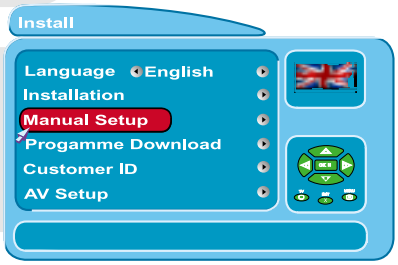
**2** Press the cursor DOWN button to select INSTALL. Once highlighted, accept selection.



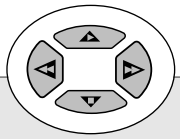




**3** Press the cursor DOWN button to select MANUAL SETUP. Once highlighted, accept selection.

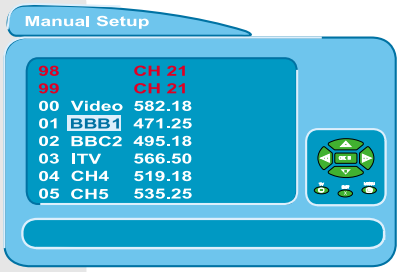


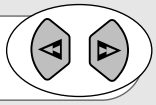

**4** Use the cursor keys to move the selection bar over the NAME required to be adjusted.



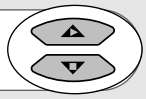
**5** Once highlighted, accept selection to start editing name.

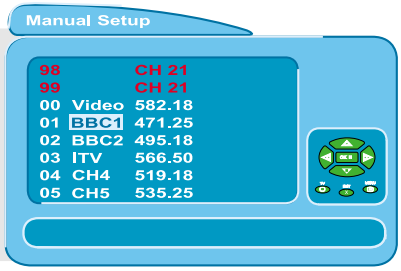



**6** Press the LEFT/RIGHT cursor keys to select the character you wish to change.



**7** Press the UP/DOWN cursor keys or 0-9 number keys * to edit the name.



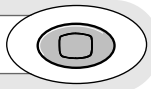



*The number buttons on your handset can also be used to enter letters.
**To enter letters**: Press the number key twice for the first corresponding letter (written above the key), three times for the second etc.
*e.g.: Press number key 2, twice for 'A', three times for 'B' and four times for 'C'.*

**8** Press OK key OK to confirm change or X key X to cancel change and restore previous name.

*If you have a Viewlink compatible video, press the AV key to transfer any information changes to your VCR.*

**9** To return to normal TV operation, press the TV button on your handset.



## ...notes on programme download

Programme download can be useful, if, for any reason you have to change your VCR. Providing you have a viewlink compatible VCR, this feature enables the user to download the preset programmes from the TV which saves having to tune-in the new VCR.
***See viewlink feature for details.***

## What is *Viewlink*?

*The Viewlink function allows the direct communication between your TV and a Viewlink compatible VCR*, enabling features such as downloading of tuning information from the TV to the VCR, making TV/Video setup easier.*

## To use *Viewlink* functions...

1. A *Viewlink* compatible VCR is necessary. *
2. The VCR must be connected to the AV1 socket on the TV by a fully wired scart cable.

* A *Viewlink* compatible VCR means a Hitachi VCR with the viewlink logo, or a VCR with one of the following logos:

- "Q-Link" (a trademark of Panasonic Corporation)
- "Data Logic" (a trademark of Metz Corporation)
- "Easy Link" (a trademark of Philips Corporation)
- "Megalogic" (a trademark of Grundig Corporation)
- "Smartlink" (a trademark of Sony Corporation)
- "T-V Link" (a trademark of JVC Corporation)

*These VCR's may support some or all of the features described - refer to the VCR instruction manual.*

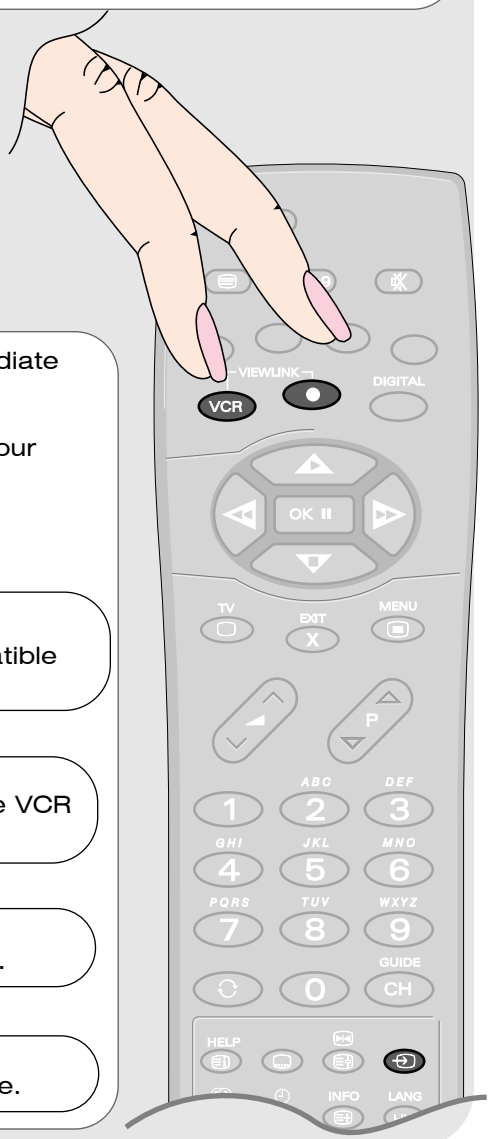
## *Viewlink* features

### Preset Download

This function enables a download of tuning information from the TV to the VCR e.g. programme order/name etc. This helps to ensure that correct recordings are made.
The Preset Download function automatically begins when initial setup is complete of AUTOTUNE or the AV key is pressed whilst in MANUAL SETUP.
This function can also be started from the VCR - refer to VCR instruction manual.

**PLEASE NOTE:** If "*No Viewlink compatible VCR found*" is displayed, the download was not performed correctly.
Before trying to download again, ensure the following:

- The VCR is turned ON;
- The VCR is connected to the AV1 socket;
- The scart cable is fully wired;
- The VCR is *Viewlink* compatible.




### Direct TV Recording

***What You See Is What You Record*** - This will allow the immediate recording of the programme currently being viewed on the TV.

**To Record** - Press the VCR and record buttons on your handset simultaneously. A message will appear on the screen showing what is being recorded, or if it is not possible to record. (Examples are shown below and on the opposite page).

**No Viewlink Compatible VCR Found**

The television is trying to communicate with a Viewlink compatible VCR, and cannot find one.

**Feature Not Supported by VCR**

The television is trying to get the VCR to perform a function the VCR does not support.

**VCR Not Recording - No Tape**

The VCR cannot record because there is no tape inserted.

**VCR Is Currently Playing**

The VCR cannot record because it is currently playing a tape.

## *Viewlink* features - continued

### Direct TV Recording - continued

**VCR Recording From TV**

The VCR is recording from the televisions tuner. If the channel is changed on the television, it will affect the recording. However, menus and OSDs will not affect the recording.

**VCR Recording from VCR Tuner**

The VCR is recording from its own tuner, using a frequency sent by the television, i.e. not one of the VCRs own preset channels. The television can be switched off and recording will not be affected.

**VCR Recording Preset**

The VCR is recording one of its own channels. The television can be switched off and recording will not be affected.

**VCR Recording from VCR External**

The VCR is recording from one of its AV connections. The television can be switched off and recording will not be affected.

**Tape Is Write Protected**

The VCR cannot record because the tape write protect tab is missing.

**VCR Has No Signal To Record**

There is no signal on the selected VCR input (VCR tuner or external AV connection).

**VCR Is Already Recording**

The VCR cannot record because it is already recording.

**VCR Has Tape Problems**

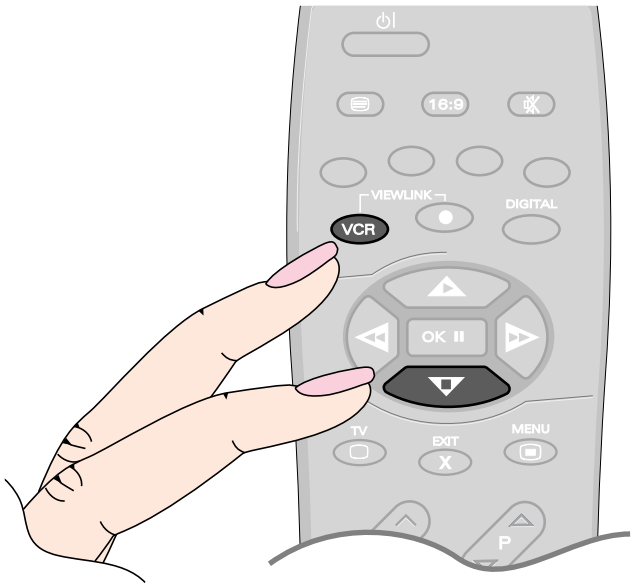
There is a problem with the tape in the VCR (tape tangled, faulty, snapped etc.).

**VCR Not Recording**

The VCR cannot record because of a problem other than listed.

**To Stop Recording** - Press the VCR and Stop buttons VCR ▽ on your handset simultaneously. Recording will stop.

To operate via the VCR - refer to VCR instruction manual.




**PLEASE NOTE:** Generally, the VCR cannot record a TV channel that cannot be received properly by the VCR's tuner, even though you can view that channel on the TV. However, some VCR's can use the TV's output to record a TV channel. For details, refer to your VCR instruction manual.

### TV Auto Power On

If you insert a tape and press 'PLAY' on the VCR whilst the TV is in 'Standby' mode, the TV will automatically switch ON and select AV1 so that you can view the tape.

### VCR Auto Power Standby

If the TV is switched into 'Standby' mode, the VCR will also switch into 'Standby' mode, providing the VCR is not in operation. (If rewinding a tape, the VCR will not switch into 'Standby' until rewinding has stopped.)

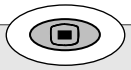
### VCR Image View

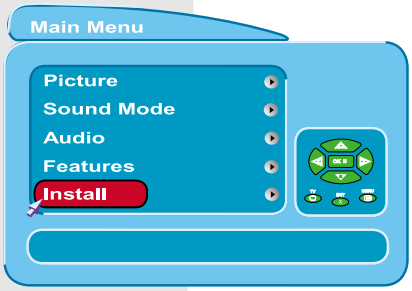
If the TV is in 'Standby' mode, and a VCR menu is operated, the TV will automatically switch ON and the images from AV1 terminal will be displayed on screen.

## ...notes on Customer I.D.

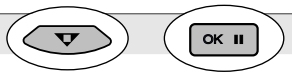
The Customer I.D. feature allows the user to enter a personal security code and address information into the television's memory, so that in the unfortunate event of theft, it will help the Police trace the owner. Please follow the steps below.

**1** Press the MENU button. The MAIN MENU appears.

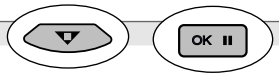


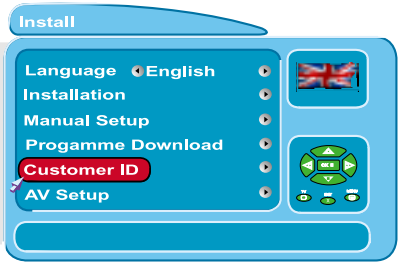



**2** Press the cursor DOWN button to select INSTALL. Once highlighted, accept selection.



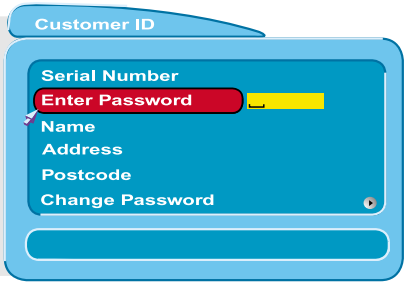

**3** Press the cursor DOWN button to select CUSTOMER I.D. Once highlighted, accept selection.



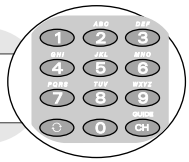

**4** 'ENTER PASSWORD' is highlighted.

**5** Press O.K. to accept selection.



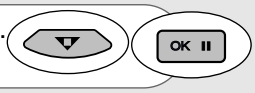

***PLEASE NOTE: No other selection is available at this point.***

**6** Enter '**1234**' on handset - *this password is preset at the factory.*

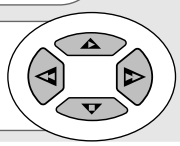


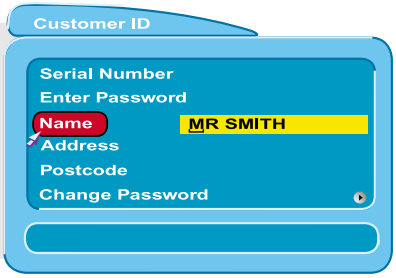
**7** Press O.K. to accept selection.

**8** Press the cursor DOWN button to select NAME. Once highlighted, accept selection.




**9** Press the LEFT/RIGHT cursor keys to select each character and UP/DOWN cursor keys, or 0-9 number keys * to change each character (maximum of 16).






*The number buttons on your handset can also be used to enter letters.
**To enter letters**: Press the number key twice for the first corresponding letter (written above the key), three times for the second etc.
*e.g.: Press number key 2, twice for 'A', three times for 'B' and four times for 'C'.*

**10** Press O.K. to complete.

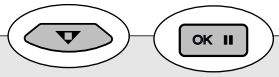
**11** Repeat steps 8, 9 and 10 to highlight and change your address and postcode. If you make a mistake, or wish to cancel the change of address, press X key (X) on your handset.

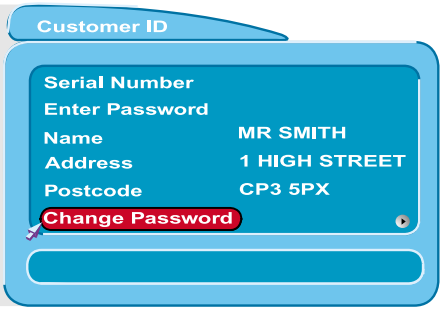
***PLEASE NOTE : After you have changed your address etc., please see 'password change' section of this manual before returning to normal TV operation.***

## ...notes on Changing your Password

***We recommend that the user changes the password to one of their own choice once all personal details have been entered. Please see below for instructions.***

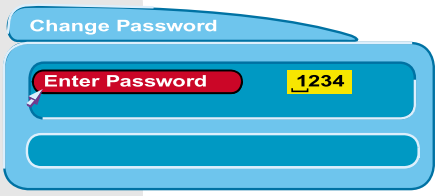
**1** Whilst still in CUSTOMER I.D. menu, press the cursor down button to select CHANGE PASSWORD. Once highlighted, accept selection.



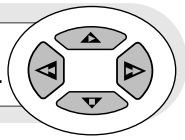




**2** 'ENTER PASSWORD' will be highlighted.

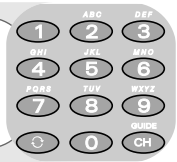
**3** Press O.K. to accept selection.




**4** Enter your chosen 4 digit password using the LEFT/RIGHT cursor keys to select each character and UP/DOWN cursor keys, or 0-9 number keys * to change each character.

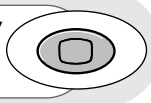


*The number buttons on your handset can also be used to enter letters.
**To enter letters**: Press the number key twice for the first corresponding letter (written above the key), three times for the second etc.
*e.g.: Press number key 2, twice for 'A', three times for 'B' and four times for 'C'.*



**5** Press O.K. to complete.

**6** To return to normal TV operation, press the TV button on your handset.



***IMPORTANT! For future reference, write your password in the box provided and keep in a safe place!***

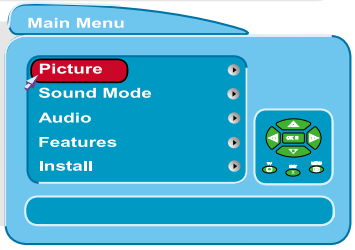
**PASSWORD**

_ _ _ _

For picture and sound values, moving the cursor ***left will decrease*** values, whilst moving the cursor ***right will increase*** values.

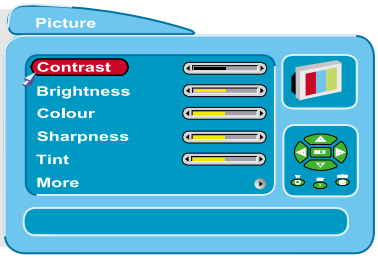
1. Press the MENU button to obtain MAIN MENU.

2. The MAIN MENU highlights the PICTURE option automatically - press OK to select.



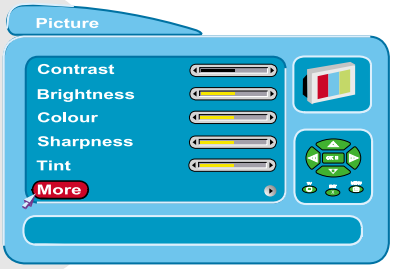

3. Select the picture control to be adjusted by using the UP / DOWN cursor buttons.

4. Once highlighted, adjust the chosen controls by pressing the LEFT/RIGHT cursor buttons.



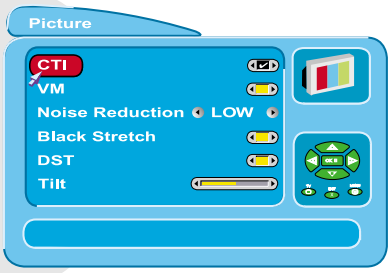

5. To select MORE options, use the UP/DOWN buttons to highlight selection and then press OK to confirm.

6. Select the picture control to be adjusted by using the UP/DOWN cursor buttons.




7. Once highlighted, adjust the chosen controls by pressing the LEFT/RIGHT cursor buttons (for explanation see below).

8. The values changed will remain until they are next altered. Press the TV button on your handset to return to normal TV operation.




## Noise Reduction

Helps reduce the noise interference visible on your television, especially in weaker signal reception areas. Select OFF/LOW/MID/HIGH to compensate for noisy pictures.

## CTI

Colour Transient Improvement - This control lets you improve the clarity of your television's colour edges.

## VM

Velocity Modulator - this increases or decreases the sharpness of your television's picture so it appears less blurred especially in left and right edges of the screen.

## Colour Temperature (Tint)

Shows a sliding scale so you can adjust the spectrum of colour of your television's picture - slide to the RIGHT to exaggerate the RED (WARM) tones of your picture, slide to the LEFT to exaggerate the BLUE (COOL) tones of your picture. Equal balance is at the centre of the scale.

## Black Stretch

This control turns all dark grey parts of the picture black.

## Dynamic Skintone (DST)

This control dynamically improves the colour of the skin.

## Hue

This control allows you to adjust the colour of your television's picture when viewing NTSC signals only.

## Tilt (not available on all models)

Shows a sliding scale which allows you to tilt your TV screen up or down to suit your personal viewing preference.

## ...notes on NICAM features

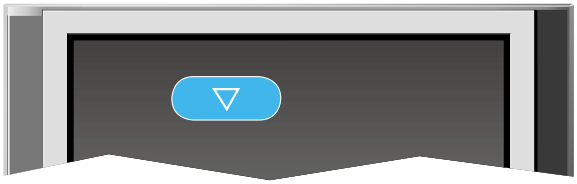
NICAM is a method for transmitting and receiving stereo sound. If your TV is unable to receive NICAM because of the wrong geography, climate etc., or when NICAM in not transmitted in your location it will produce a monaural sound source.

### stereo

This effect produces NICAM digital stereo sound from your TV. Use this mode for the majority of TV viewing. When selected the stereo symbol appears.
Use the I-II-▽ button on your handset to switch to stereo.

### monaural

In this mode the TV produces a single sound source. Some stereo signals can be poor in adverse weather conditions, and mono should be selected to avoid poor sound.
Use the I-II-▽ button on your handset to switch to mono.



## ...notes on dual language transmissions

A dual language transmission is where channel 1 and channel 2 of the NICAM stereo broadcast carry completely separate information i.e. soundtracks in two different languages for a movie. A dual language broadcast is denoted by a symbol I or II in the top right hand corner of the screen. This can be seen on first entry to the channel by pressing the INFO button on your handset.
The user can select which of the two languages is heard through both the left and right television speakers by using the I-II-▽ button on your handset. In the case of a NICAM dual language broadcast, this will also allow the mono FM broadcast to be selected.

### channel 1

When this symbol is displayed, channel 1 of a dual language broadcast is being received.
Use the I-II-▽ button to access the mode while receiving a dual language broadcast.

### channel 2

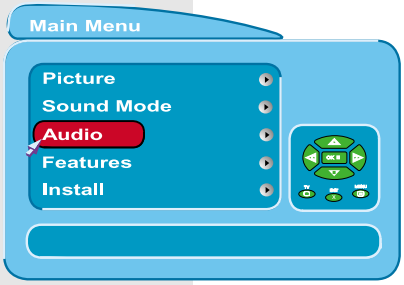
When this symbol is displayed, channel 2 of a dual language broadcast is being received.
Use the I-II-▽ button to access the mode while receiving a dual language broadcast.

The sound source, when chosen, will be stored with the programme number being used.

1. Press the MENU button to obtain MAIN MENU.

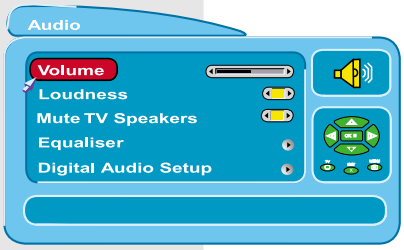
2. Press the cursor DOWN button to select AUDIO.

3. Once highlighted, accept selection.




4. Select the control to be adjusted by using the UP/DOWN cursor buttons.

5. Once highlighted, adjust the chosen controls by pressing the LEFT/RIGHT cursor buttons.




## volume control

This control is used to increase, or decrease the sound from your TV's speakers. This also sets the volume at switch-on.

## loudness on/off control

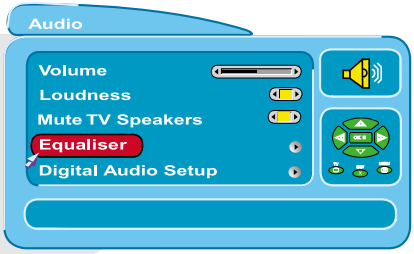
When listening to your TV at a low volume, switch this control ON to compensate for the lack of low and high frequencies.

## mute TV speakers

This option is used to switch your television's internal speakers ON or OFF. The headphone and rear RCA outputs are not affected.

6. Select EQUALISER option using the UP/DOWN cursor buttons.

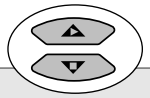
7. Once highlighted, accept selection.



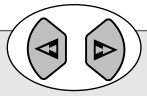
## equaliser

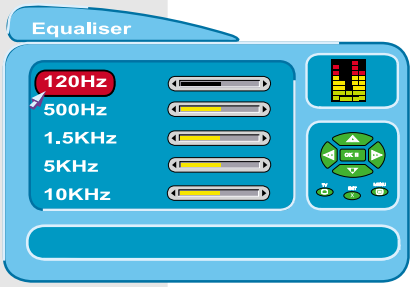
The EQUALISER menu is used to adjust the tonal ranges of your TV's sound.

**8** Select the mode or sound frequency to be adjusted by using the UP/DOWN cursor buttons.



**9** Once highlighted, adjust the chosen controls by pressing the LEFT/RIGHT CURSOR buttons.






## LFE Volume

Low Frequency Effects controls. *Only available when your TV is in Dolby Digital, decode modes (see SOUND MODE) and receiving a dedicated LFE channel.* This adjusts the contribution the LFE channel makes to your TV's bass response.
***Please Note:*** *On broadcasts where there is no dedicated LFE channel, the* LFE VOLUME *option will not be available in the* AUDIO *on-screen menu.*

## 120Hz bass range

This range controls the bass sound from your television - if the bass sound from your TV is too 'boomy', turn this control down.

## 500Hz mid bass range

This range is the basis of your sound - if your television's sound is too rich, or not rich enough, adjust this control to enhance the TV's sound.

## 1.5kHz mid range

Use this control to adjust the mid-range voice area of your TV's sound.

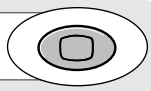
## 5kHz mid high range

When this control is increased it emphasizes the flute and string instruments of your TV's sound - when decreased it has a soothing effect on the sound.

## 10kHz high range

The sharp sound of triangles and cymbals are emphasised if this control is increased.

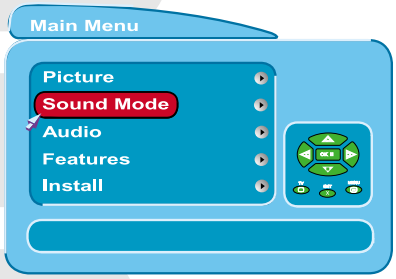
**10** To return to normal TV operation press the TV button on your handset.



# ...notes on sound mode

The Sound Mode menu is used to adjust and display the signal sources available from your TV's speakers, whether the source be analogue or digital.

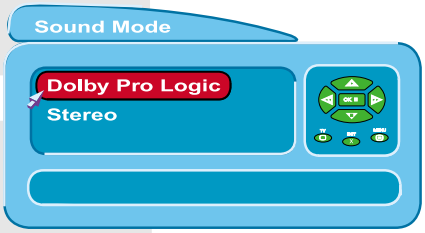
1. Press the MENU button to obtain MAIN MENU.




2. Press the cursor DOWN button to select SOUND MODE.

3. Once highlighted, accept selection.

4. Use UP/DOWN cursor buttons to select your choice of sound mode.




5. Once highlighted, accept selection. When you turn your TV off, by default this will be the sound mode when it is switched back on.

# analogue options in sound mode

When the Audio signal source is analogue - that is, a television broadcast, a connection to either the video in or audio in, found on the front control panel, or if you have any equipment connected to a scart input socket found at the rear of your television the sound mode gives you two options to choose from - Dolby Pro logic or stereo.

## Dolby Pro Logic / Digital 3DS

This mode is particularly suitable for films and programmes that display the Dolby Pro Logic caption. Dolby Pro Logic/Dolby Digital can only be achieved by the addition of an external surround sound amplifier and speaker system. Sockets have been provided to enable you to do so if you wish.
You can, however, enjoy a surround sound experience, without the need to add external equipment, from your televisions Digital 3DS surround sound system developed by Hitachi. Digital 3DS uses the surround channel information which has been separated from the original sound track by the integral Digital decoder, and processes it, before feeding it back to the internal TV speakers.

## stereo

When stereo mode is selected, your TV produces high quality stereo sound. Select this mode when viewing general TV and music programmes.

## when using headphones

*When the headphones are in use the only sound mode available will be the STEREO option.*

# digital options in sound mode

When your television is switched to an AV scart input whose decode mode is set to AUTO/DIGITAL and a digital signal source is connected and playing on the coaxial or optical connectors, the options found in the SOUND MODE menu become dependent on the type of digital signal being received.

***Please note:*** to enjoy the sound benefits of Dolby Digital etc.you will require software (eg. DVD disc, in which Dolby-D, signals are recorded.) and suitable hardware (some form of disc player, which can output a digital signal).

## Dolby Digital signal *options*

***Dolby Digital -*** In this mode surround sound can be created, with the digital audio capabilities increasing the precise localisation of sounds, improving the ambience experienced.

***Dolby ProLogic -*** In this mode surround sound can be created.

***Stereo -*** Stereo downmix** mode which inputs the Dolby Digital x/y.z information through your televisions internal left and right speakers.

## 44.1/48kHz PCM signal *options*

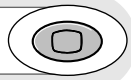
***Dolby Pro Logic -*** In this mode surround sound can be created.

***Stereo -*** Stereo mode which provides signals for your televisions internal left and right speakers.

*****Downmix -*** this is when all the five multi-channels (left, right, surround left, surround right, centre) are outputted through the televisions left and right speakers

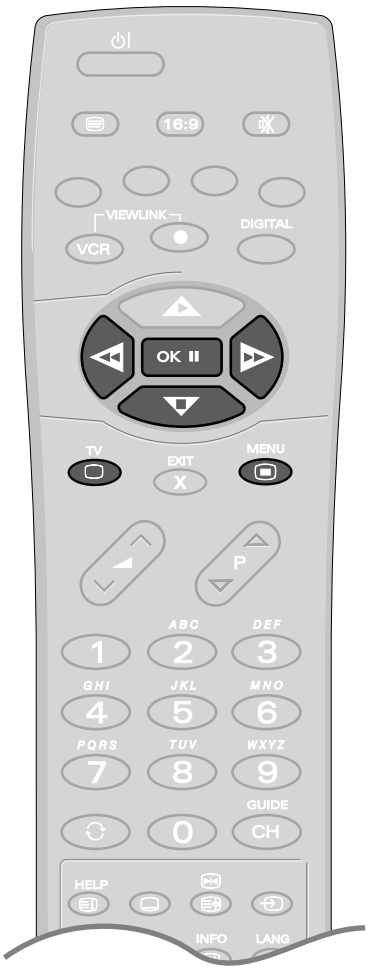
***Please note:*** When the television is set to digital mode and no external equipment is connected, your television will assume PCM mode and will offer the options listed above in the **PCM signal *options***. It must also be noted that the type of audio signal which will be outputted can usually be found on your external equipment.

6 To return to normal TV operation press the television button on your handset.

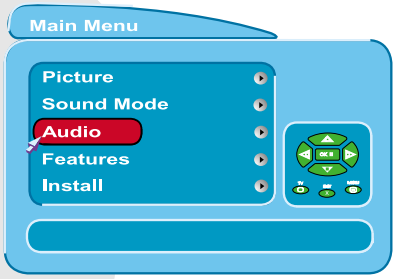


## ...notes on digital audio setup

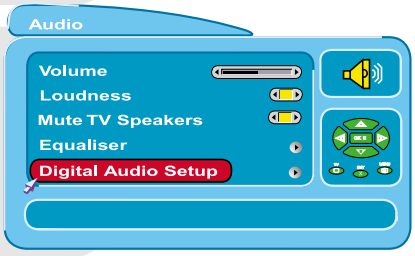
The Digital Audio Setup menu allows you to control the sound output of any external equipment you have connected through the Audio Visual sockets. For example, if the connection from your external equipment to the television is via AV4, the Digital Audio source should be set as AV4.



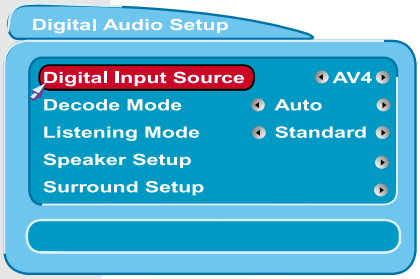

1. Press the MENU button to obtain the MAIN MENU.
2. Press the cursor DOWN button to select AUDIO.
3. Once highlighted, accept selection.




4. Press the cursor DOWN button to select DIGITAL AUDIO SETUP.
5. Once highlighted, accept selection.




6. Select the control to be adjusted by using the UP/DOWN cursor buttons.
7. Once highlighted, adjust the chosen controls by pressing the LEFT/RIGHT cursor buttons.




### digital input source

The digital audio setup menu allows the digital audio decoder in your television to be assigned to the AV scart input that your DVD, CD player is connected to.

### decode mode

***see also Sound Mode for effects***

There are three possible decode modes...

**Digital** Your television ignores the analogue input on the selected AV and instead uses the optical or coaxial input as its source.

**Auto** Your television will automatically select between digital and analogue sources. If both are present, the digital source takes priority.

**Analogue** The television ignores the digital input in either the optical or coaxial connector and instead uses the analogue information on the selected AV as its source.

### listening mode

When listening to a Dolby Digital source with the television sound mode set to Dolby Digital this control allows you to take advantage of special codes stored on the disc to reduce, or increase sound effects.

**Maximum** makes the best use of the televisions dynamic range. It will enhance sound effects such as explosions or music.

**Standard** is the normal listening mode. It does not make full use of your televisions dynamic range, but is a good compromise for all day viewing/listening.

**Night** mode allows the audio to be reproduced in such a way that the impact of soundtrack extremes (such as explosions) are reduced while quiet passages are 'boosted', allowing all the audio information to be heard at a low volume level. As it's name suggests, this mode is intended for night-time viewing.

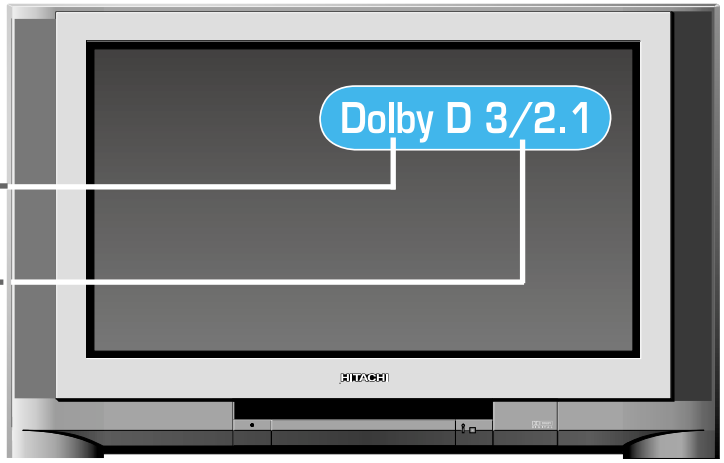
8. To return to normal TV operation press the television button on your handset.

## ...notes on digital audio status

When your television is in its appropriate Audio Visual mode and a digital signal is being played and applied through one of the Audio Digital in connections (either optical or coaxial), the input status and incoming format will be displayed in the top right hand corner of the screen.

**digital input status**
describes the type of incoming digital audio signal
*please see table below.*

**format**
*for explanation see*
digital audio status - display format




| decode mode | explanation |
|---|---|
| PCM (Pulse Code Modulation) | This is the decode mode for a digital signal encoded by PCM. This is a two channel audio source which may, or may not be encoded in Dolby Pro Logic - its encoding depends on the source material. It can be regarded as a better quality version of the left and right analogue audio signals heard from your TV through a scart input connection. This format is generally used for standard Audio CD's. |
| Dolby Digital<br>Dolby D 3/2.1 | This is the decode mode for a digital signal encoded by Dolby Digital. This is capable of delivering a maximum of 5 main channels (left, right, surround left, surround right and centre) and a Low Frequency Effects (LFE) channel. Your television takes advantage of data on the disc to tell you the number of different channels available on the decoded track |

## ...notes on Laserdisc connection

A Laserdisc source with a Dolby Digital RF output cannot be connected to this TV directly. Please obtain an adaptor from an electrical retailer.
Also note that when using a Laserdisc player in conjunction with an RF demodulator to decode Dolby digital sound, Hitachi recommend putting the Decode mode to DIGITAL. This will avoid dropping in and out of analogue sound while searching or pausing the disc that is playing.

Pressing the INFO button on your handset reveals the format of the incoming signal **not** the way it is being processed i.e. pressing the INFO key on the handset might reveal Dolby D 3/2.1, but your TV might be set to stereo mode - see digital audio setup. Also note only analogue output is available for both AV2 and AV3 as a monitor out signal, even if digital audio has been selected.

| Display Value | Channels Present in Digital Input (for Dolby Digital) | | | | | | Comments |
|---|---|---|---|---|---|---|---|
| | Front Left | Front Right | Centre | Left Surround | Right Surround | Low Frequency Effects (LFE) | |
| 3/2.1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Full multi-channel encoding, all active |
| 3/1.1 | ✓ | ✓ | ✓ | ✓ | | ✓ | Surround is mono in this case |
| 3/0.1 | ✓ | ✓ | ✓ | | | ✓ | No surround channels available |
| 3/2.0 | ✓ | ✓ | ✓ | ✓ | ✓ | | Main channels but no LFE channel |
| 3/1.0 | ✓ | ✓ | ✓ | ✓ | | | Surround mono in this case, no LFE channel |
| 3/0.0 | ✓ | ✓ | ✓ | | | | No surround or LFE channels available |
| 2/2.1 | ✓ | ✓ | | ✓ | ✓ | ✓ | All channels except centre |
| 2/1.1 | ✓ | ✓ | | ✓ | | ✓ | Left, Right, mono surround and LFE |
| 2/0.1 | ✓ | ✓ | | | | ✓ | Left, right and LFE only |
| 1/0.1 | | | ✓ | | | ✓ | Centre and LFE only |
| 2/2.0 | ✓ | ✓ | | ✓ | ✓ | | All channels except centre and LFE |
| 2/1.0 | ✓ | ✓ | | ✓ | | | Left, right and mono surround only |
| 2/0.0 | ✓ | ✓ | | | | | Left and right channels only (may be encoded in ProLogic) |
| 1/0.0 | | | ✓ | | | | Centre channel only (mono) |

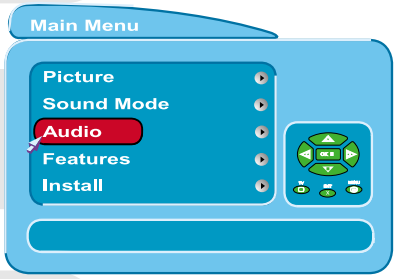
This chart explains what sound channels are present when listening to the connected external equipment which has a digital output. These values can be viewed by pressing the INFO button on your handset when a digital signal is being received.

# ...notes on speaker setup

The Speaker Setup menu allows you to customise the televisions audio performance to your own requirements. These requirements might be the use of external amplifiers on one or more sound channels, or to use alternative speakers. This menu can help you organise the bass (or 'boom') re-direction by specifying whether large, small or no speaker at all has been connected. Whatever your choice, this menu allows for greater flexibility and ultimately an improved sound performance.

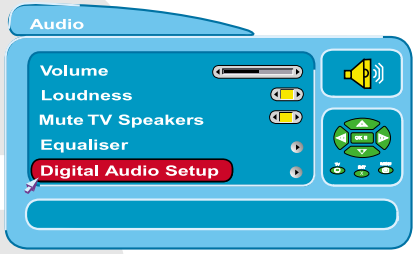
1. Press the MENU button to obtain the MAIN MENU.

2. Press the cursor DOWN button to select AUDIO.



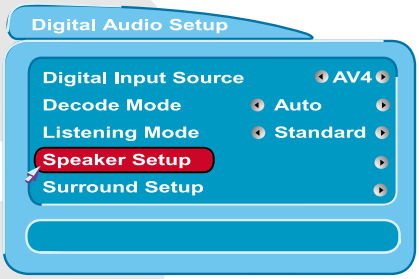

3. Once highlighted, accept selection.

4. Press the cursor DOWN button to select DIGITAL AUDIO SETUP.




5. Once highlighted, accept selection.

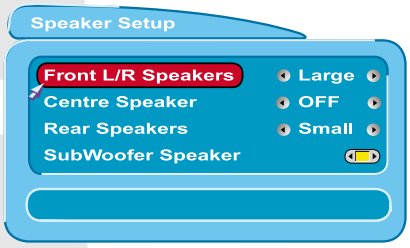
6. Press the cursor DOWN button to select SPEAKER SETUP.




7. Once highlighted, accept selection.

8 Select the speaker to be adjusted by using the UP/DOWN cursor buttons.

9 Once highlighted, adjust the chosen speaker by pressing the LEFT/RIGHT cursor buttons.




## ...notes on speaker options

The speaker controls can be set to either **SMALL**, **LARGE** or **OFF,** (except for the **SubWoofer** speaker which is either ON or OFF. If you have a SubWoofer speaker attached, choose ON, if not, choose OFF ). This is to specify the type of speaker connected. If your connected speakers low frequency response (the bass or 'boom' sound) is poor, adjust the chosen speaker value to SMALL. If the low frequency response is good, set the speaker value to LARGE. This allows the bass performance to be optimised. If any of the speaker options are not connected, or you do not want to hear sound from selected speakers, switch this option to **OFF**. The TV will then automatically re-direct the sound to the remaining speakers.

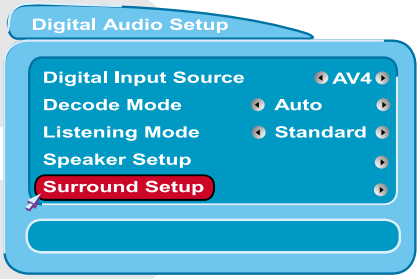
10 To complete the setup of your speakers, we recommend that you now select the SURROUND SETUP menu. Press the X button to return to the DIGITAL AUDIO SETUP menu.

## ...notes on surround setup

This menu allows you to change the volume of the available connected speakers and also to customise the speaker options to optimise the sound output.

11 In the DIGITAL AUDIO SETUP menu, press the cursor DOWN button to select SURROUND SETUP.

12 Once highlighted, accept selection.



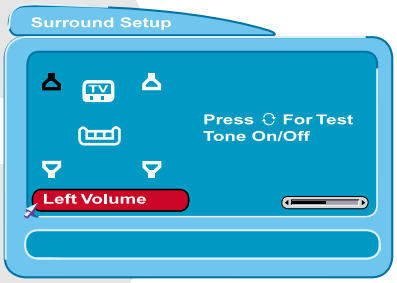
## sound sequencer

The sound sequencer is automatic when entering the Surround Setup menu. This relays sound in sequence amongst the available output channels (The selected speaker will flash and turn RED). From this you can judge what speaker volume has to be adjusted so you get the impression you are sitting within the centre of the sound.

PLEASE NOTE: Your television allows you to change the test sound when altering the speaker volumes. Press the swap button on your handset and your TV will switch between the Test Tone and normal viewing sound.

13 Press the UP/DOWN buttons to select the speaker you wish to change.

14 The selected speaker will flash and turn RED on the display. Press the LEFT/RIGHT buttons to change the setting.

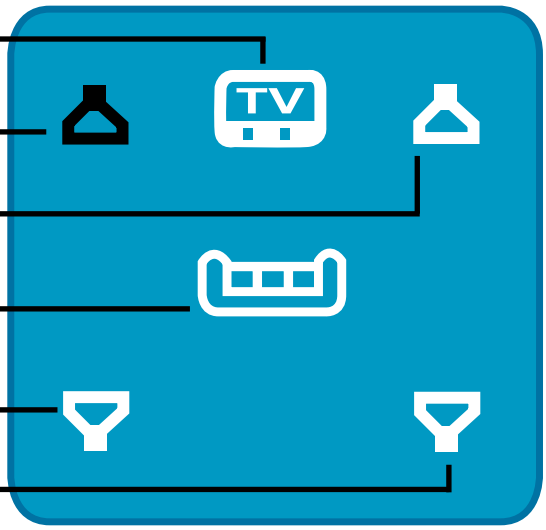



## speaker environment display

The effect of your adjustments can be heard, and also seen by looking at the display which accompanies your Surround Setup menu. This diagram is a representation of your living area, and its contents are explained below.

## ...notes on speaker environment display

- your TV and internal speakers (including centre speaker)
- front left external speaker
- front right external speaker
- seating position see **...notes on seating position**
- rear left external speaker
- rear right external speaker

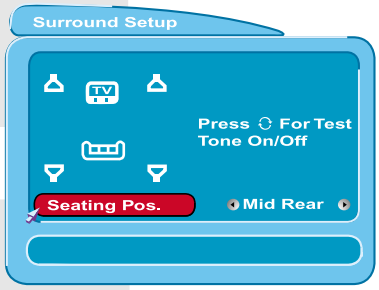


## seating position

The seating position control accommodates the position of the speakers with regard to your seating position, and so further creates an atmosphere where improved sound qualities are obtained from your TV. Please see below for details on this control.

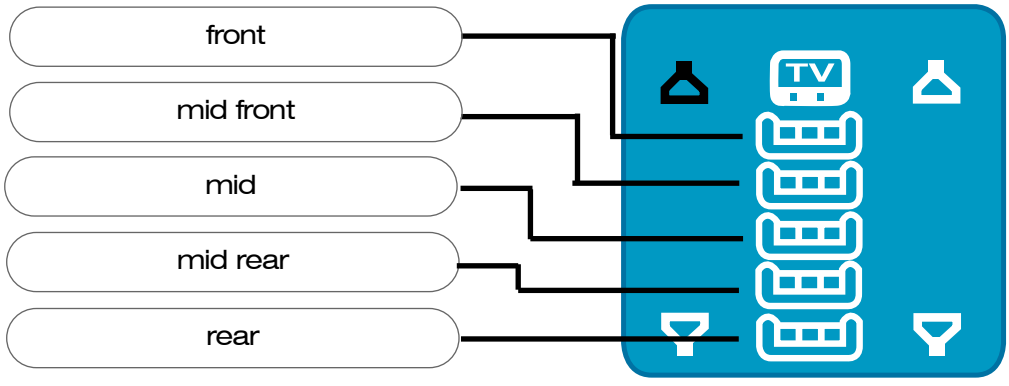
15 In the SURROUND SETUP menu, press the UP/DOWN buttons to select SEATING POS. option.

16 Press the LEFT/RIGHT buttons to change the setting.




## ...notes on seating position

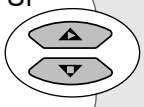
- If you are seated near the front speakers, adjust the seating position to FRONT.
- If you are seated between the front and rear speakers, but closer to the front speakers, adjust the seating position to MID FRONT.
- If you are seated between the front and rear speakers, adjust the seating position to MID.
- If you are seated between the front and rear speakers, but closer to the rear speakers, adjust the seating position to MID REAR.
- If you are seated at a position close to the rear speakers, adjust the seating position to REAR.

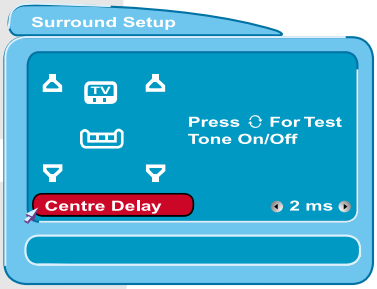


## Centre Delay

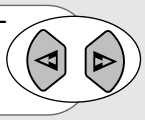
If your environment is set up in such a way that external speakers (if connected) are behind your television, increase the Centre Delay so that the sound from external speakers and your TV's centre speaker arrive at your seating position at the same time, ensuring no drop in sound quality.

17 In the SURROUND SETUP menu, press the UP/DOWN buttons to select CENTRE DELAY option.





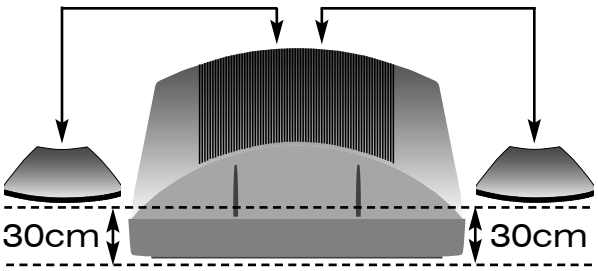

18 Press the LEFT/RIGHT buttons to change the setting.



***Please Note:*** For approximately each 30cm that your external speakers are placed behind your TV the Centre Delay value should increase by 1ms - see diagram below.

### example 1 (showing top view)

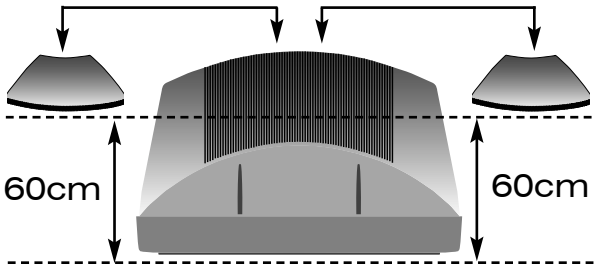
*speakers connected to rear of TV*




If speakers are placed 30cm behind TV, Centre Delay value should be set to 1ms.

### example 2 (showing top view)

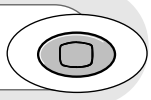
*speakers connected to rear of TV*




If speakers are placed 60cm behind TV, Centre Delay value should be set to 2ms.

The Centre Delay value can be set to a maximum of 5ms. Therefore to enjoy the full sound capabilities of your television do not place your external speakers more than 150cm behind the front of your TV.

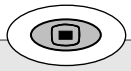
19 Once all options have been altered to suit your requirements, press the television button on your handset to return to normal TV operation.



## ...notes on Sleep Timer

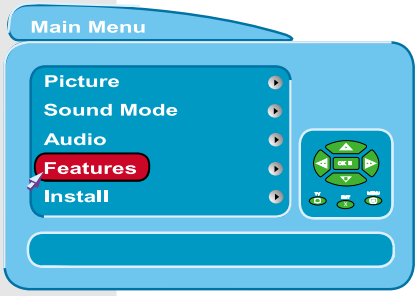
This feature is used to automatically place your TV into standby mode after a set number of minutes - use the LEFT/RIGHT cursor buttons to set the timer between 5 and 120 minutes. When the timer has only a minute left this will be shown on the screen as a countdown from 59 seconds to zero, after which your TV's status will be standby.

1. Press the MENU button to obtain MAIN MENU.

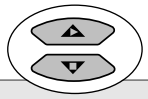


2. Press the cursor DOWN button to select FEATURES.

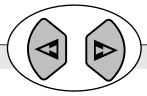
3. Once highlighted, accept selection.

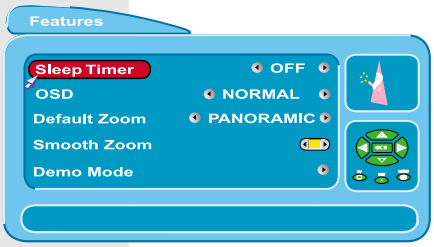



4. Use UP/DOWN cursor buttons to select option to adjust.

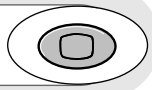


5. Use LEFT/RIGHT buttons to adjust the number of minutes to be used in your television's countdown.






6. To return to normal TV operation press the TV button on your handset.

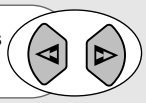


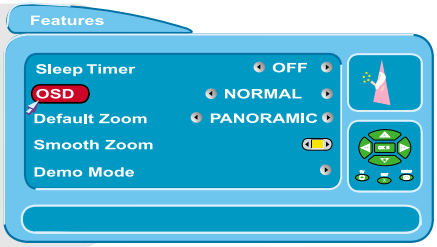
## ...notes on O.S.D. (On Screen Display)

This feature is used to choose whether the On Screen Display (O.S.D.) appears on screen, or to select the amount of time it appears on-screen, in normal TV viewing. Please see below for details.

1. REPEAT STEPS 1 TO 4 ABOVE.

5. Use LEFT/RIGHT buttons to adjust the O.S.D. options i.e. OFF/NORMAL/FAST.






**OFF**

O.S.D. does not appear on programme change, volume etc.

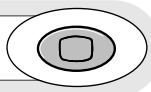
**NORMAL**

O.S.D. appears for a few seconds on programme change, volume etc.

**FAST**

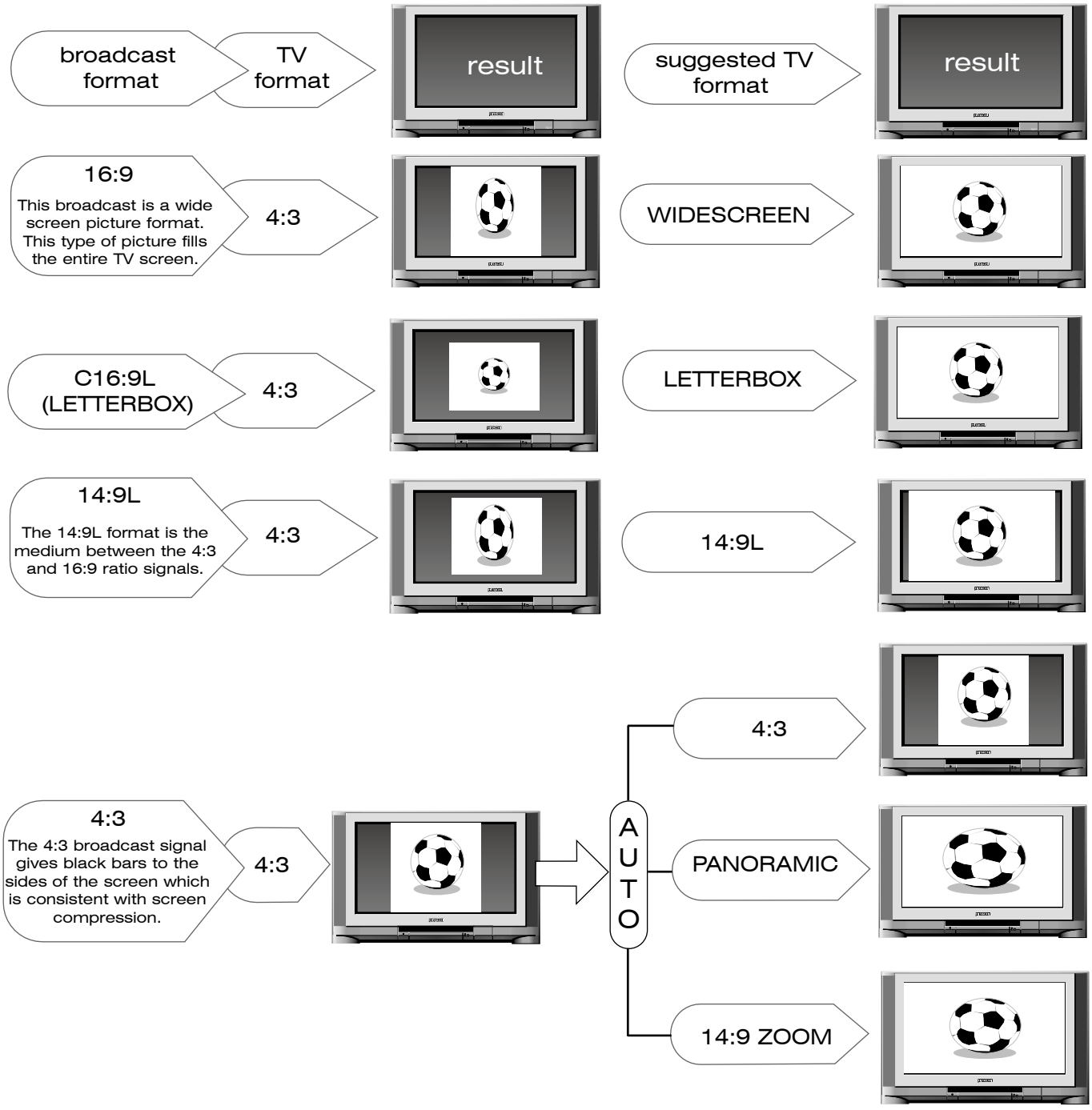
O.S.D. disappears faster on programme change, volume etc.

6. To return to normal TV operation press the TV button on your handset.



# ...notes on wide screen features

Various broadcast stations now transmit movies and programs in true wide screen format.
Your TV detects these signals and automatically switches your TV to the correct viewing format. However, some broadcasters do not transmit this automatic sensing signal, and so your TV will not recognize which format is being transmitted. Your viewing format can be selected manually by simply pressing the (16:9) key on your handset to scroll through the viewing format options.
See the examples below for the available viewing formats.




# ...notes on auto mode

The Auto format is also one which can be selected manually. Auto mode automatically detects various screen formats that are transmitted in either conventional (4:3) or wide screen (16:9 or 14:9) format. After detecting which signal is being transmitted, the TV will automatically switch to the correct screen ratio.

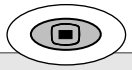
## ...notes on Default features

Your TV also has default features which can control the viewing format of your TV's picture. See below for entry into and adjustment of these features.

## ...notes on Default Zoom

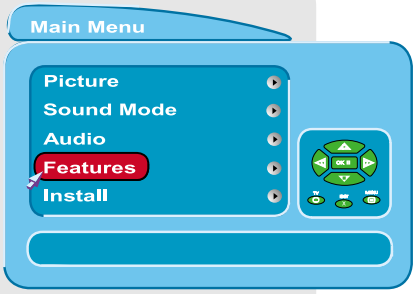
Various broadcast stations now transmit WSS (Wide Screen Signals) which identify the picture format movies and programmes are broadcast in.
Your TV can detect these Wide Screen Signals and automatically switch to the correct format. However, some broadcasters do not transmit WSS, and so your TV will not recognize which format is being transmitted. Therefore, DEFAULT ZOOM is used to choose your picture requirements when a Wide Screen Signal has not been sent or has not been detected.

1. Press the MENU button to obtain MAIN MENU.

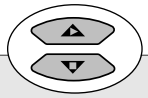


2. Press the cursor DOWN button to select FEATURES.

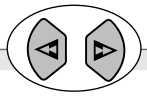
3. Once highlighted, accept selection.

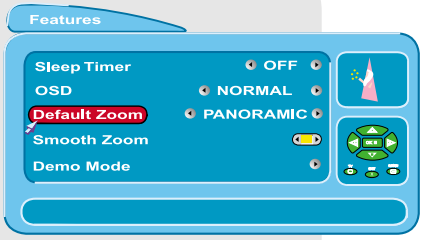



4. Use UP/DOWN cursor buttons to select option to adjust.

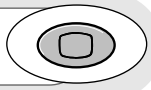


5. Use LEFT/RIGHT buttons to select DEFAULT ZOOM standard.






6. To return to normal TV operation press the TV button on your handset.

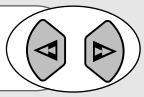


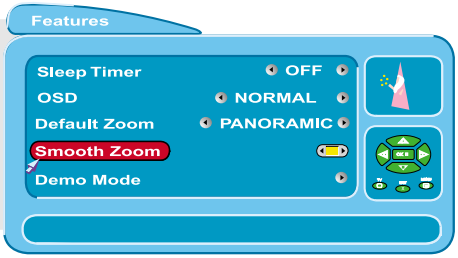
## ...notes on Smooth Zoom

Smooth Zoom controls the way in which the television changes between 16:9 modes. Please see below for details.

1. REPEAT STEPS 1 TO 4 ABOVE.

5. Use LEFT/RIGHT buttons to adjust the SMOOTH ZOOM option i.e. ON/OFF.





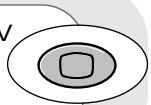

**ON**

Television changes between 16:9 modes smoothly.

**OFF**

Television changes between 16:9 modes quickly.

6. To return to normal TV operation press the TV button on your handset.



# ...notes on Teletext

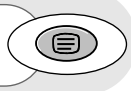
Teletext is an on screen information magazine and it is entered by pressing the teletext button on your handset - a page similar to the one below will appear. Select the topic you want to view by entering a three digit number on your handset corresponding to the page number eg. press 1, 0, 1 for the News Headlines.
Alternately, press a coloured button which relates to one of the topics at the bottom of the screen (the Fastext service), e.g. press the green button on your handset for the sport magazine.

magazine page number
magazine name
date
time
magazine title
page contents
Fastext/favourite pages
P100 CEEFAX 2 100 Wed 19 Mar 15:49/06
BBC CEEFAX
CEEFAX AT-A-GLANCE PRESS HOLD
NEWS HEADLINES 101 LOTTERY 555
NEWS INDEX 102 BACKBEAT 560
ELECTION 97 120 FREETIME 570
NEWS EXTRA 140 GARDENING 573
CITY BBC2 200 COOKBOOK 580
SPORT 300 ON THE BOX 590
WEATHER 400 TV GUIDE 600
TRAVEL 430 TV LINKS 615
CBBC INDEX 500 RADIO BBC1 640
SUB ZERO 501 EDUCATION BBC2 630
NEWSROUND 510 READ HEAR BBC2 640
SHOWTIME 520 COMMUNITY BBC2 650
SWITCHED ON 540 RACING 660
NEWS EXTRA..NEWS EXTRA..NEWS EXTRA
Home 141 World 142 Politics 143
News Heads Sport TV/Radio Weather

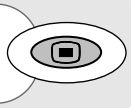
# ...notes on favourite pages

Your TV is capable of storing up to four of your favourite Teletext pages - maybe the sports page, cookery page or gardening page - the choice is yours. These are accessed, like Fastext, by pressing the colour coded buttons on your handset. Follow the steps below to enter your favourite pages.

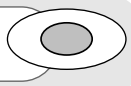
1. Enter Teletext by pressing the Teletext button.



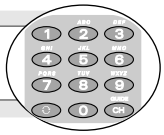
2. Enter favourite page mode by pressing the MENU button (this allows you to swap between Fastext and favourite page mode).



3. Press a colour coded key you wish to use as a favourite page.



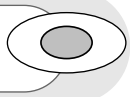
4. Enter the 3-digit page number using the 0-9 buttons on your handset.



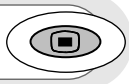
P100 CEEFAX 2 100 Wed 19 Mar 15:49/06
BBC CEEFAX
CEEFAX AT-A-GLANCE PRESS HOLD
NEWS HEADLINES 101 LOTTERY 555
NEWS INDEX 102 BACKBEAT 560
ELECTION 97 120 FREETIME 570
NEWS EXTRA 140 GARDENING 573
CITY BBC2 200 COOKBOOK 580
SPORT 300 ON THE BOX 590
WEATHER 400 TV GUIDE 600
TRAVEL 430 TV LINKS 615
CBBC INDEX 500 RADIO BBC1 640
SUB ZERO 501 EDUCATION BBC2 630
NEWSROUND 510 READ HEAR BBC2 640
SHOWTIME 520 COMMUNITY BBC2 650
SWITCHED ON 540 RACING 660
NEWS EXTRA..NEWS EXTRA..NEWS EXTRA
Home 141 World 142 Politics 143
L XXX XXX XXX XXX

favourite page box

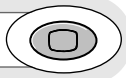
5. Once this number has been entered, press and hold the same colour coded button until the favourite page box turns white, then returns to its original colour.



6. Repeat if necessary using a different coloured key, or press the MENU button to return to normal Teletext viewing.

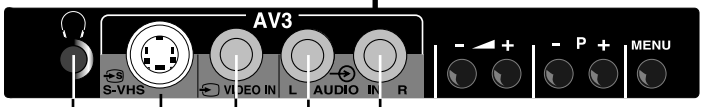


7. To return to normal TV operation press the TV button on your handset.



## camcorder

Connecting a camcorder to your TV is easy. First, identify the type of camcorder and its connecting sockets. If it is a standard 8mm type camera then this is likely to have 'RCA' type sockets. If you have an S-VHS or Hi8 camera you may have an S-VHS socket. Open the front control panel door and connect your equipment as detailed here. Switch your TV on and press the TV/AV button on your handset until AV3 is displayed on your TV screen. (If you are using an S-VHS socket, your TV will automatically switch to AV3). Now begin playback operation of your equipment. Alternatively, you could allocate an individual channel number for your camcorder equipment - see **signal source entry**.




Before connecting external equipment, please consult **audio visual setup.**

### audio in right

Use this socket, along with audio in left to obtain sound from your external equipment through your TV's speakers.

### headphone connection

To use headphones with your TV insert the headphone jack plug (3.5mm) into the corresponding socket.

### audio in left

Use this socket, along with audio in right to obtain sound from your external equipment through your TV's speakers.

### S-VHS socket

Use this socket with an S-VHS or Hi8 camera to view your recordings.

**PLEASE NOTE**: Do not connect a camera to the S-VHS/Hi8 socket and the Video in socket at the same time - fit one or the other!

### video in

Use this in conjunction with a standard 8mm camera or digital camera to see the picture from your equipment.

## connecting to the mains socket

Important - Please read **television safety** before connecting your television and external equipment.

If digital video broadcasting equipment, computer equipment, DVD or video games are to be connected to this TV, use the AV2 or AV4 socket located on the rear of your TV for RGB input. (Please see page 8).

*PLEASE NOTE: Prolonged use of computer equipment or games on this TV may cause permanent damage to your picture tube. To avoid such damage, reduce the brightness and contrast to an acceptable level and limit the duration of use of computer equipment.*

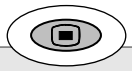
## ...notes on signal source entry

Each piece of external equipment connected to your TV must have its own input socket. It would also be easier, and more organized, if the external equipment connected also had its own program number. *Signal Source entry allows you to tell the allocated program what equipment is connected to which socket.* This would make the switching between normal operation and the connected equipment much smoother.

For example, if you want to connect a games machine to your TV -

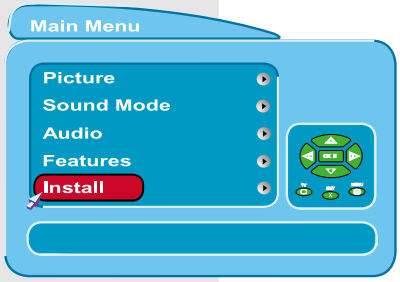
1. connect to socket AV2 via a scart lead.
2. give your games machine an empty program number of its own.
3. if desired change this program name.
4. give this program the correct AV signal source.

1. Press the MENU button. The MAIN MENU appears.



2. Press the cursor DOWN button to select INSTALL.

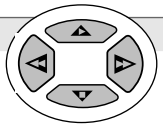
3. Once highlighted, accept selection.

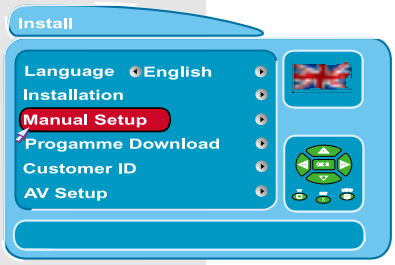



4. Press the cursor DOWN button to select MANUAL SETUP.

5. Once highlighted, accept selection.

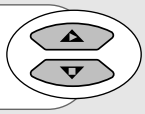
6. Use the UP/DOWN cursor keys to select the programme you wish to use and the LEFT/RIGHT cursor keys to move the selection bar over the AV required to be adjusted.

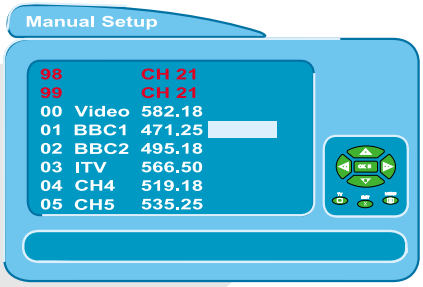





7. Once highlighted, accept selection.

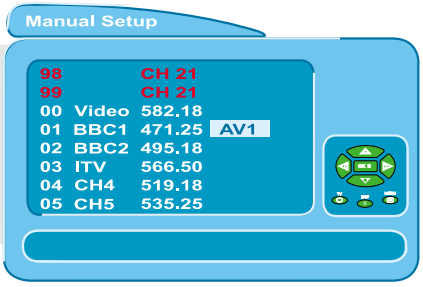
8. Select your method of signal source entry using the UP/DOWN cursor buttons.





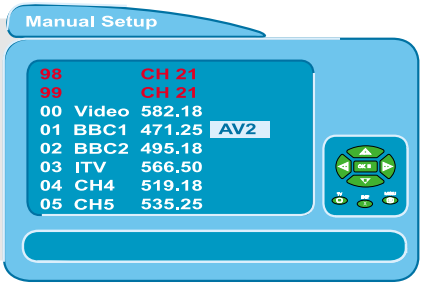

## option 1

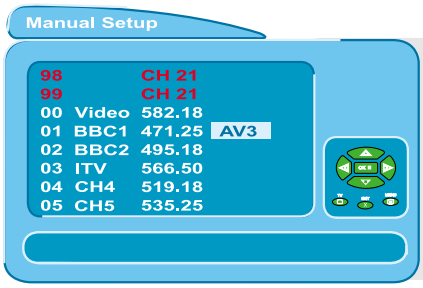
AV1 is the signal source used when connecting a VCR through a scart lead to the AV1 socket at the rear of your TV. For convenience, programme 0 is best used for your VCR.



## option 2

AV2 is the signal source used when connecting external equipment such as home entertainment systems and Set Top Boxes/Decoders through a scart lead to the AV2 socket at the rear of your TV.



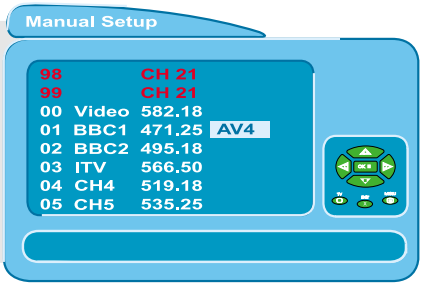



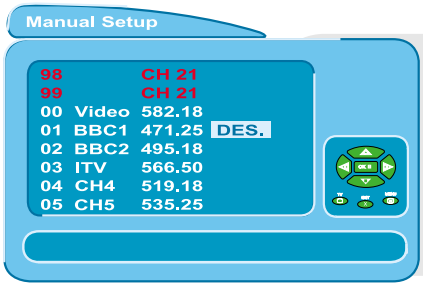

## option 3

AV3 is the signal source used when connecting temporary equipment like a camcorder through the audio/video sockets at the front of your TV.

## option 4

AV4 is the signal source used when connecting digital video broadcasting equipment or home entertainment systems through a scart lead to the AV4 socket at the rear of your TV.



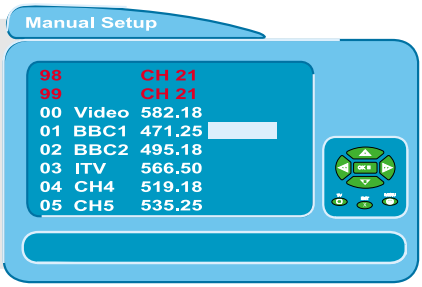




## option 5

DES is the signal source used when connecting an external decoder, to descramble signals from the aerial (i.e. Canal +), through a scart lead to the AV1 socket at the rear of your TV.

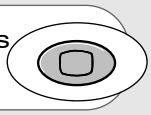
## ...notes on RF signal source

RF is the signal source used for standard television broadcasting and this should be used as the setting for normal TV programmes. This source appears blank.



9 Once the signal source for each relevant program number has been decided, this can be stored in your TV's memory by pressing the OK button.

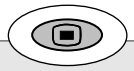
10 To return to normal TV operation press the TV button on your handset.



## important note

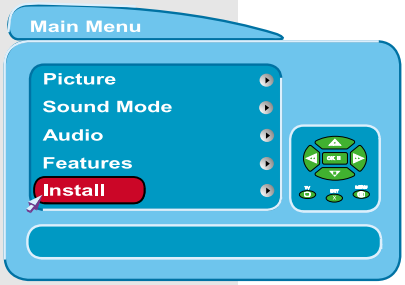
It is very important that the AV menu setup is adjusted correctly when connecting external equipment to your TV - an incorrect setting may lead to poor picture performance.

1. Press the MENU button. The MAIN MENU appears.



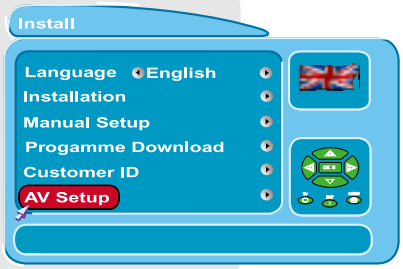
2. Press the cursor DOWN button to select INSTALL.

3. Once highlighted, accept selection.

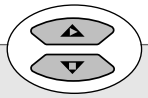



4. Press the cursor DOWN button to select AV SETUP.

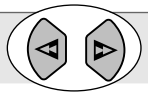
5. Once highlighted, accept selection.

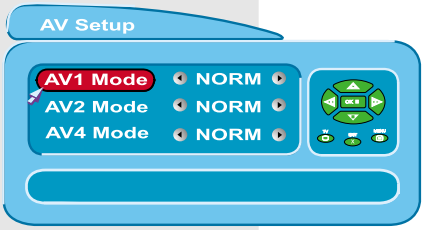



6. Use the UP/DOWN cursor keys to select AV to adjust.



7. Adjust chosen AV by using the LEFT/RIGHT cursor buttons. (Please see below).






### AV1

**NORM**

Use this setting for VHS* video recorders/decoders etc.

**SVHS**

Use this setting for SVHS* equipment e.g. video recorders/DVD players.

### AV2/4

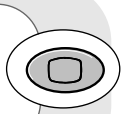
**NORM**

Use this setting for VHS* video recorders/decoders etc.

**RGB**

Use this setting for digital Set Top Boxes/computer video games/DVD players etc.

8. To return to normal TV operation press the television button on your handset.

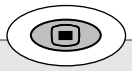


**** Please see your other equipment user manuals to establish the best setting to use (VHS/SVHS etc.).***

## Language

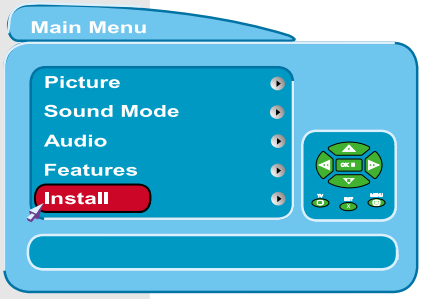
This enables you to change the language of the On Screen Displays. Please see below for details.

1. Press the MENU button. The MAIN MENU appears.



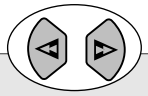
2. Press the cursor DOWN button to select INSTALL.

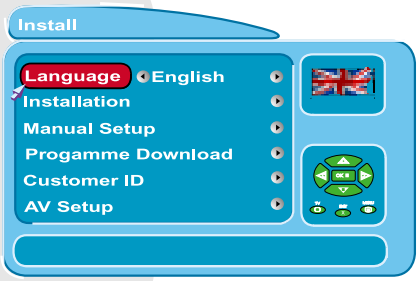
3. Once highlighted, accept selection.



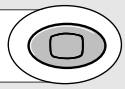

4. Press the cursor DOWN button to select LANGUAGE.

5. Adjust to your chosen language using the LEFT/RIGHT cursor buttons.






6. To return to normal TV operation press the television button on your handset.



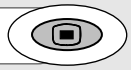
## Installation

This enables you to repeat the Autotune installation if required, e.g. if you move house etc.

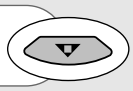
### important note on Installation

Do not switch your TV on until all external equipment is connected. If you have a Video Cassette Recorder or a Satellite receiver connected to this TV please ensure that they are switched on before automatic tuning begins. In the case of a VCR, if it is not Viewlink compatible, insert a pre-recorded tape and begin playback of your equipment. If it is Viewlink compatible leave VCR in Standby. (See **viewlink** section of this manual for details). With a Satellite receiver select Sky News. These measures ensure that all your external equipment is tuned in during the autotune procedure.

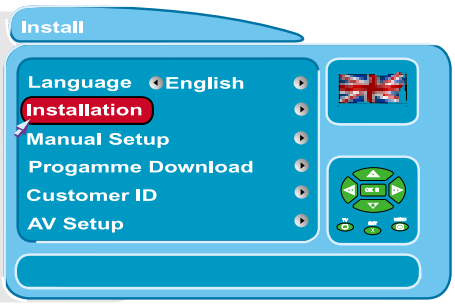
1. REPEAT STEPS 1 - 3 ABOVE.



4. Press the cursor DOWN button to select INSTALLATION.



5. Once highlighted, accept selection.

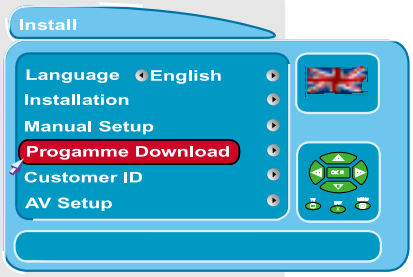



***Please now turn to automatic tuning procedure', found in the 'tuning in' section of this manual, and follow the instructions, starting from STEP 4 and continuing through to STEP 7.***

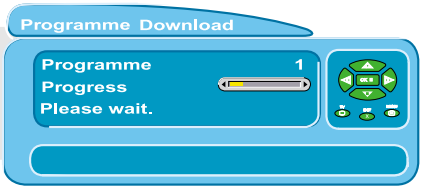
## Programme Download

if you have purchased a Viewlink compatible VCR, select this feature to download the programme listings from your TV to the new VCR.

1. REPEAT STEPS 1 - 3 AS PREVIOUS.
4. Press the cursor DOWN button to select PROGRAMME DOWNLOAD.
5. Once highlighted, accept selection.




6. Your TV will now download the programme information.

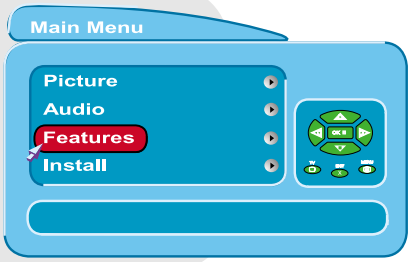



7. To return to normal TV operation press the TV button on your handset.

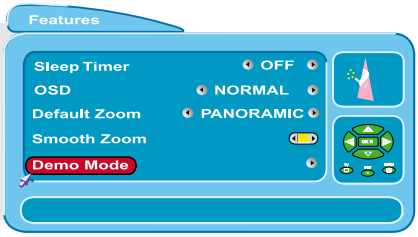
## Demo Mode

This enables you to have a brief overview of the features available on your television.

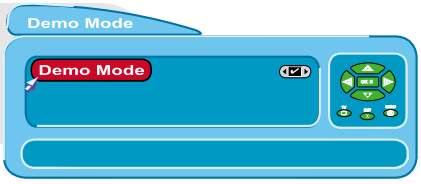
1. Press the MENU button to obtain MAIN MENU.
2. Press the cursor DOWN button to select FEATURES.
3. Once highlighted, accept selection.




4. Press the cursor DOWN button to select DEMO MODE.
5. Once highlighted, accept selection.




6. Use LEFT/RIGHT buttons to adjust the DEMO MODE options, i.e. ON/OFF.



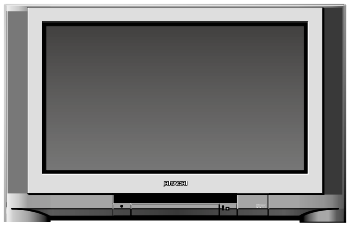

7. The TV will now demonstrate the features and On Screen Displays available on your TV.
*PLEASE NOTE: This is a demonstration only - no settings are changed during this demonstration!*

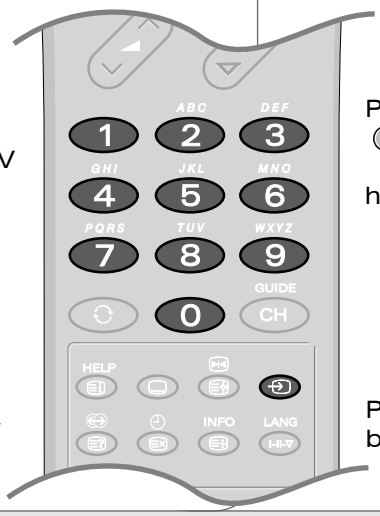
8. To return to normal TV operation, press the TV button on your handset.

| problem identification | possible cause | remedy |
|---|---|---|
| ***1. No digital audio. Pressing the info/recall button on your handset doesn't show Digital audio modes or format in top right hand corner of screen.*** | No or poor digital connection between television and external equipment | See 'DVD, CD and LaserDisc player connection' |
| | Incorrect Decode Mode | Set the Decode Mode to correct AV (see Decode Mode set up procedure) |
| | Laserdisc with Dolby Digital RF signal cannot be detected | Fit adaptor as described in 'DVD, CD and LaserDisc player connection' |
| | Decode Mode is set for wrong AV (you will have the correct picture from your external equipment but no sound) | Set the Decode Mode to Digital or Auto (see 'Digital Audio Status - Decode Mode' set up procedure) |
| | Television is set to the wrong AV (you will have the wrong picture or no picture at all) | Use the Manual Setup procedure to set the AV correctly, or use the AV key to cycle through the Audio Visual options. |
| | Player is not playing because it has been switched off or placed in 'Pause' mode. | Refer to external equipment's instructions |
| | Invalid or damaged disc has been placed in player. | Refer to external equipment instructions. Is the disc compatible with the external equipment you are using? |
| | Signal options not supported by television. | See Digital Audio Status for list of modes available. |
| | Digital audio out has not been enabled on player. | Refer to external equipment instructions on how to enable the digital audio output. |
| ***2. Digital audio works but only PCM mode is available even when playing a Dolby Digital encoded disc.*** | Your external equipment has not been configured to output a digital bitstream, does not support Dolby Digital output, or the correct format is not enabled on the external equipment. | Refer to external equipment instructions for compatibility. |
| | You have not selected a Dolby Digital track from the DVD title menu | Refer to title menu on disc to set audio format |
| ***3. No sound even at maximum volume, although the correct picture can be seen.*** | Headphones have been inserted into front control panel. | Remove headphones. |
| | External/internal speaker switch is in the incorrect position. | Place in correct position to use appropriate speakers. |

| problem identification | possible cause | remedy |
|---|---|---|
| ***4. Picture is OK, but digital audio is intermittent.*** | Poor connections. | Check your coaxial/optical connections. |
| | Faulty disc. | Try an alternative disc. |
| | Faulty external equipment. | Try alternative equipment or contact your equipment's supplier. |
| ***5. Picture and digital audio are intermittent.*** | Has a scart lead connection been made between TV and external equipment? | Check quality of connection. |
| | Faulty external equipment. | Try alternative equipment or contact your equipment's supplier. |
| ***6. One or more of the rear channels is not working.*** | The disc placed in your external equipment has no surround information on it. | This is normal operation |
| | You are in Stereo mode. | Change the mode in the Sound Mode menu. |
| | You are playing a disc with an incompatible sample rate. | This is normal operation |
| | Your external equipment has not been configured to output a digital bitstream, does not support Dolby Digital output, or the correct format is not enabled on the external equipment. | Refer to external equipment instructions for compatibility. |
| | You have not selected a Dolby Digital track from the DVD title menu | Refer to title menu on disc to set audio format |
| ***7. No digital mode options available in Sound Mode Menu.*** | Are headphones inserted into front control panel? | Remove headphones to adjust Surround Mode. |
| | You are playing a disc with a high sample rate. | This is normal operation. |

| questions | answers |
|---|---|
| Why won't my TV switch on? | Check that your plug is connected to the socket and switched on, check fuse and make sure TV is not in standby mode (see below). |
| Why doesn't my remote control handset work? | Make sure there are no obstructions between the handset and the TV's infra-red lens, or the batteries may be exhausted - replace the whole set of batteries. |

| problem identification | possible reason | remedy |
|---|---|---|
| snowy picture - poor sound | Connection of aerial lead to the TV is poor. | Make new connection and/or change aerial plug. |
| | Corroded or poor aerial connections. | Make new connections or renew lead. |
| | Aerial has moved position. | Re-align aerial. |
| | Adverse weather conditions. | None. |
| | Transmitter problems. | Check with local Operator. |
| multiple images - sound O.K | Aerial has moved position. | Re-align aerial. |
| | TV not tuned correctly. | Re-tune or fine tune TV. |
| | Adverse weather conditions. | None. |
| | Transmitter problems. | Check with local Operator. |
| | AV Input not set correctly. | Check what external equipment is connected and check its scart AV status. |
| intermittent interference | Interference from electrical or mechanical motors, fluorescent lights, portable radios etc. | Check devices for shielding and renew if necessary or move further from TV. |
|  no picture or sound | TV may be in AV mode. | Press the AV button or 0 to 9 buttons on your handset to return to normal TV mode. |
| | Picture/sound controls set to minimum. | Check picture/sound controls (go to MAIN MENU). |
| | TV in standby mode. | Press one of the buttons 0 to 9. |




*If a problem still continues after referring to this guide contact your dealer immediately.*

**Under NO circumstances remove the rear cover of your TV.**

# Guarantee

Thank You for purchasing this Hitachi Television.

In the unlikely event that this product should develop a fault, we undertake to repair or replace any part of the product which fails due to a manufacturing defect within 12 months of the date of purchase provided that...

1. the product has been installed and used only in accordance with the instructions supplied with the product.
2. the product has not been repaired, maintained, or modified by any person other than a Hitachi authorized dealer.
3. the product serial number has not been removed or altered.

- this guarantee does not apply to a product acquired second hand or for commercial or communal use.
- this guarantee does not cover the replacement of exhausted batteries, the adjustment of user controls, or aerial alignment.
- any parts replaced under this guarantee shall become the property of Hitachi Home Electronics (Europe) Ltd.
- please note that evidence of the date of purchase will be required before any service under this guarantee is carried out.

Use the boxes provided below to record your TV's Model and Serial Number - these are found on the rating plate located on the rear of the TV. Also, record where and when you purchased this T.V. This information will help any future queries you may have and should be used in all correspondence with Hitachi service centres.

| MODEL | SERIAL NUMBER | DEALER/STORE | DATE PURCHASED |
|---|---|---|---|
| | | | |

*This guarantee does not affect your statutory rights.*

*In all cases of difficulty please consult your Hitachi dealer.*

HITACHI

# Environmental Notice

Hitachi are signatories to the commitment made by the consumer electronics industry on reducing energy consumption by televisions and video recorders on standby.

Even though your TV has a low power consumption, you can reduce waste to zero if you switch off the set at the mains after use. Your TV should certainly be switched off overnight or when you are away from home. Other factors should also be considered when operating your TV. Reducing volume settings to sensible levels can reduce power consumption as well as reducing noise pollution, and reducing contrast can provide a more pleasing picture as well as reducing power consumption.

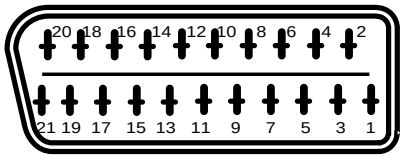
Hitachi Home Electronics (Europe) Ltd. manufacturing site in Wales is a BSI Registered Company, and has been assessed to ISO 9001 Quality Management Standard, certificate FM32366. Your television has been manufactured under the Environmental Quality Management Standard ISO14001, certificate EMS 36168.

The paper used for this Users Guide has been produced from sustainable forests, part of Hitachi's on going commitment to the global environment.

## television specification

| | |
|---|---|
| TV Standard | 50Hz |
| Aerial Impedance | 75 Ω unbalanced |
| Picture Tube | 66cm type |
| | 76cm type |
| Mains Voltage | 220 - 240V AC 50 Hz |
| Internal Speakers | 8 Ω 15Watt |
| Power Consumption | 66cm = 109W (approx) |
| | 76cm = 111W (approx) |
| | Standby <6W (all models) |
| Weight | 66cm = 37.0kg (NET) |
| | 76cm = 55.0kg (NET) |
| Dimensions (Width x Depth x Height) | 66cm = 790 x 525 x 516 (mm) |
| | 76cm = 883 x 572 x 551 (mm) |
| Remote Control Batteries | 2 X HITACHI R6P(G) |
| | (equivalent 'AA') |

## scart sockets




### scart socket AV1

| | |
|---|---|
| 1 | AUDIO OUT (RIGHT) |
| 2 | AUDIO INPUT (RIGHT) |
| 3 | AUDIO OUT (LEFT) |
| 4 | GROUND (AUDIO) |
| 5 | NOT USED |
| 6 | AUDIO INPUT (LEFT) |
| 7 | NOT USED |
| 8 | SWITCHING INPUT |
| 9 | NOT USED |
| 10 | DATALINK TO VCR (VIEWLINK) |
| 11 | NOT USED |
| 12 | NOT USED |
| 13 | CHROMINANCE GROUND |
| 14 | NOT USED |
| 15 | S–VHS CHROMINANCE INPUT |
| 16 | NOT USED |
| 17 | GROUND (VIDEO) |
| 18 | GROUND (VIDEO) |
| 19 | COMPOSITE VIDEO OUTPUT |
| 20 | COMPOSITE VIDEO OR S–VHS LUMINANCE INPUT |
| 21 | GROUND |

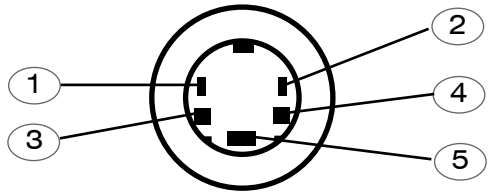
### scart socket AV2

| | |
|---|---|
| 1 | AUDIO OUT (RIGHT) |
| 2 | AUDIO INPUT (RIGHT) |
| 3 | AUDIO OUT (LEFT) |
| 4 | GROUND (AUDIO) |
| 5 | GROUND (BLUE) |
| 6 | AUDIO INPUT (LEFT) |
| 7 | BLUE INPUT |
| 8 | SWITCHING INPUT |
| 9 | GROUND (GREEN) |
| 10 | NOT USED |
| 11 | GREEN INPUT |
| 12 | NOT USED |
| 13 | GROUND (RED) |
| 14 | GROUND (BLANKING) |
| 15 | RED INPUT |
| 16 | STATUS (BLANKING) INPUT |
| 17 | GROUND (VIDEO) |
| 18 | GROUND (VIDEO) |
| 19 | COMPOSITE VIDEO OUTPUT |
| 20 | COMPOSITE VIDEO INPUT |
| 21 | GROUND |

### scart socket AV4

| | |
|---|---|
| 1 | NOT USED |
| 2 | AUDIO INPUT (RIGHT) |
| 3 | NOT USED |
| 4 | GROUND (AUDIO) |
| 5 | GROUND (BLUE) |
| 6 | AUDIO INPUT (LEFT) |
| 7 | BLUE INPUT |
| 8 | SWITCHING INPUT |
| 9 | GROUND (GREEN) |
| 10 | NOT USED |
| 11 | GREEN INPUT |
| 12 | NOT USED |
| 13 | GROUND (RED) |
| 14 | GROUND (BLANKING) |
| 15 | RED INPUT |
| 16 | STATUS (BLANKING) INPUT |
| 17 | GROUND (VIDEO) |
| 18 | GROUND (VIDEO) |
| 19 | NOT USED |
| 20 | COMPOSITE VIDEO INPUT |
| 21 | GROUND |

## S-VHS socket




| PIN | FUNCTION |
|---|---|
| 1 | Chrominance input |
| 2 | Luminance input |
| 3 | Chrominance ground |
| 4 | Luminance ground |
| 5 | Frame ground |

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